Summer 1979

WPI journal

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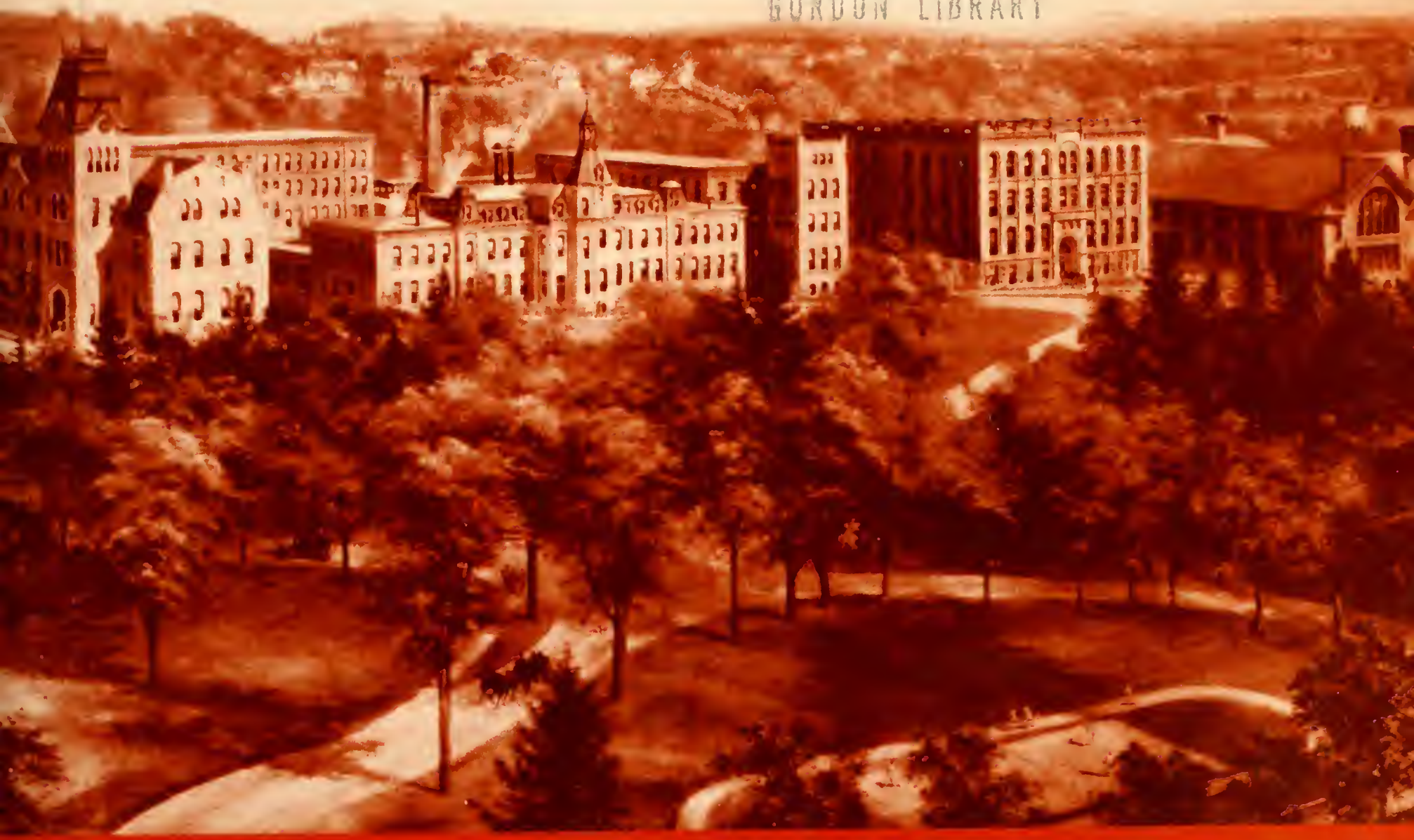

Some changes in the Journal
For years, the *WPI Journal* has carried advertising, which has furnished in some years up to 15 percent of the costs of production. But, because of some complex Postal Service regulations regarding second class mail (which is how the *Journal* is sent), there will be no more paid ads. It was either that or pay much more in the form of significantly higher postage costs.

Together with this change, and effective with this issue, the *Journal* will be sent out four times a year instead of five. Each issue will have more pages, however, so that you will continue to receive as much news and information about WPI and your classmates as ever.

To the Editor: I read with great interest the two articles in the April 1979 WPI Journal in regard to the impact of the increased federal regulations on colleges and universities. My first reaction was to say "Welcome to the Club!" We, as a small private business, are impacted by most of the agencies you listed plus additional ones. Additionally, we are constantly filling out or answering requests from state and town regulatory bodies.

We are a small firm of about 100 employees, of which only three have college educations. Many of the forms received really do not apply to our firm. We write the agencies and explain to them that we think they are in error in requesting information from us because it does not apply to our operation. Usually the reply is some sort of computer letter back explaining that we are covered under the regulations and must fill out the information or be subject to a fine and/or imprisonment. The time and key management effort to complete the forms considerably hamper our operation and our potential growth.

In my opinion, our government bureaucracies on all levels are greatly adding to the inflation in this country. They are obstacles to obtaining increases in productivity in the American manufacturing and service industries.

I suggest that you use the WPI Journal as a forum to communicate to people the effect and cost that increased government regulations are having, not only on the universities but also on the businesses of this country. Furthermore, I suggest that the Institute require all students to take a course in business economics in which the impact of government regulation is made part of the course. Hopefully in this manner we can obtain the support of both the undergraduates and graduates to become aware of this increasing probelm and they too in turn will let their representatives know of their concerns about this issue.

Thomas McGee, '64
Petroleum Meter & Pump Co., Inc.
Avon, Connecticut

To the Editor: May I make a few comments about the government over-regulation, red tape, and bureaucratic controls that overwhelm WPI and much of our society today?

I feel very sorry that WPI and other colleges and schools suffer from excessive government interference. However, I believe that most centers of education, WPI perhaps included, are themselves largely responsible for this condition.

Where were they when federal aid to education started? (By the way, I opposed it from the start and gave speeches against it because I knew that federal aid meant federal control.) The more money the federal government has spent on education, the worse it has become nationally. Where have they been while government grew larger and larger, with deficit spending, huge budgets, and a fantastic national debt? The nominal national debt is around $800 billion, but is more accurately $9 trillion according to the National Taxpayers Union.

Even worse, many schools have been preaching socialism in their social science textbooks for years.

According to a survey of 200 U.S. colleges and universities by a committee headed by state Rep. Donna Carlson of Arizona in 1978, the top ten guest campus speakers have been socialists, even communists. *U.S. News and World Report* gave a similar story.

If we vote right next time, as the British finally woke up to do in desperation, we may still be able to reverse our ruinous socialistic tide. In the meantime, I will feel very sorry that WPI has such a burden of red tape, but I hope that you and the rest of our people will do something about it.

Ted Latour, '35
Las Vegas, Nevada

To the Editor: Your comprehensive coverage of the impact of federal regulations on WPI and other colleges and universities in the April issue of the WPI Journal was greatly appreciated.

One certainly has to empathize with the institutions of higher learning on this subject. Now administrators and faculties will come to realize what the business world has had to bear over the years.

It would be gratifying to see the articulate leaders of academia combine with the pragmatic leaders of business to present a forceful front to persuade Government to eliminate these uncreative, unproductive, and unneeded procedures.

Erling Lagerholm, '44
Boston, Massachusetts

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Design: H. Russell Kay

Typesetting: County Photo Compositing, Inc., Jefferson, Mass., and Davis Press, Inc., Worcester, Mass.

Printing: The House of Offset, Somerville, Mass.

Address all correspondence to the Editor, *The WPI Journal,* Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

The WPI Journal (ISSN 0148-6128) is published for the WPI Alumni Association by Worcester Polytechnic Institute. Copyright © 1979 by Worcester Polytechnic Institute. All rights reserved.

The WPI Journal is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second class postage paid at Worcester, Massachusetts.

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A commencement address to consider.

by John deButts, retired chairman of the Board, AT&T

As a rule, the Journal doesn't print commencement addresses. If the speaker is a national figure, especially if a politician, the speech is often unrelated to the needs or the situation of either the students or the institution, serving some other purpose for the speaker, if not the audience. On the other hand, commencement speeches are sometimes too trite, too predictable, too dull, or too specifically aimed at the single audience of graduating seniors. They carry a message of forward-looking optimism combined with an exhortation about how to live one's life.

If you just skim through this year's address by John deButts, retired chairman of the board of AT&T, you may conclude that it fits the traditional mold pretty well. But please don't just stop there. DeButts has a message for us all, not just the graduating scientists, engineers, and managers of the class of 1979. He is concerned about the attitude of the American people toward technology, and about how the engineering profession has to come to grips with that attitude. It is a message for us and for our time.

I CONGRATULATE YOU and wish you well as you confront the challenges of what some people call the "real world." That term implies that for the past four years you have dwelt in a never-never land, shielded from the bumps and bruises of making your own way in the world and insulated from the risks of being wrong. You know better. And even though it's more than 40 years since I experienced the rigors of an engineering education, I know better too.

It has been a long, long time since I have been engaged in the practice of engineering. But I have never abandoned, and never shall, the practice of engineering principles. I am everlastingly grateful for whatever instinct it was that led me to join a profession that taught me habits of mind which have served me in good stead ever since. That is why receiving an honorary degree of Doctor of Engineering from such a distinguished institution as WPI is so personally meaningful to me.

I WOULD LIKE TO SHARE my concern over three aspects of the current temper of American society. If they should turn out to be trends and remain unreversed, they would make this country a much different place — and in history a lesser one — from that which we have been developing over the past two hundred years.

My concerns center on

▶first, what I perceive as a growing estrangement from technology on the part of a substantial number of our fellow citizens;

▶second, what seems to me an increasing readiness to acquiesce to mediocrity, to settle for second-best; and

▶third, a disposition to believe that in an increasingly complex world it doesn't make much difference what one person does or fails to do.

It is to enlist you in opposition to these trends that I have come here today.

WHAT IT IS THAT ACCOUNTS for the estrangement of so many Americans from the technology to which they owe so much is a question on which you can speculate as authoritatively as I. Certainly it is a strange development for a society whose technology is the envy of the world. Even today — in an era in which a great many other countries, inspired by our example, have made technology the central engine of their progress — the United States' gross domestic product accounts for nearly 40 percent of the total market economy of all the major industrial countries in the free world.

Next month we will mark the tenth anniversary of man's first walk on the moon. Since that moment in July 1969, eleven more astronauts, all Americans, have duplicated Neil Armstrong's feat. While it is arguable as to whether the space program accelerated the nation's technological development or merely diverted its focus, there is little argument about the fact that most Americans — for a time, at any rate — saw it as the crowning manifestation of this country's technological genius.

But what went wrong? Why, at the end of a decade that began in euphoria over the U.S. exploits in space, do we find enthusiasm supplanted by a growing wariness — even fear — of technology? Why are an apparently growing number of people ready to say, in effect, "Stop the world, I want to get off"?

The antitechnology mood is diverse. Some people are simply put off, and turned off, by the complexity that technology has brought to modern society. Others see grave hazards to health and safety, even to life itself, in what appears to them a heedless assumption that what *can* be done *should* be done.

For some it was the war in Viet Nam; for others the environmental consequences of oil tanker spills and pollution of the air and water from industrial sources. The incident at Three Mile Island brought new recruits to the ranks of those who would call a halt to the further development of nuclear energy power sources.

What went wrong? Why, at the end of a decade that began in euphoria over U.S. exploits in space, do we find enthusiasm supplanted by a growing fear of technology?

Governor Dixie Lee Ray of the state of Washington, former chairman of the Atomic Energy Commission, warns against a philosophy that, in her view, could immobilize the nation. "It is," she says, "a philosophy of go slow, stop, limit everything, be fearful, don't progress, don't have any growth."

Clearly, if that philosophy should prevail, it would mean the end of economic progress and a sign that we are ready to abandon our country's historic aim as well — the aim of ever-expanding opportunity for all our people.

I WONDER, THOUGH, whether the immediate occasions I've cited are a sufficient explanation for what appears to be the end of America's two-hundred-year love affair with technology. The roots of the estrangement, I think, lie deeper. I think it springs from the abruptness with which we have been reminded that we have entered an era of limits.

From their first beginnings on the rim of this enormous continent, Americans have continuously — and almost heedlessly — spent their resources as if there were no limit to their supply, no tomorrow to hold us to account for their spending. One does not have to subscribe to the Doomsday projections of the Club of Rome to recognize the clear signals on every side that we are moving from an age of abundance to an age of increasing scarcity of material after material we had previously considered in almost limitless supply; from an age that set Growth Unlimited as its goal to one that may not be altogether without its blessings because it will force us to examine, virtually for the first time, the quality of that growth.

The first lesson of this new age is one we've all heard before and never really believed: we can't have everything. It will take hard thinking, and painful choices, to decide what it is we *really* want.

But the fact that we have entered upon an era of limits calls, in my mind, for *more* technology rather than less. It will take more technology, not less, to discover and develop the alternate energy sources the nation needs. It will take more technology, not less, to assure the safe disposal — and perhaps the creative reuse — of the wastes of an ever more complex society. It will take more technology, not less, to assure the manageability and the livability of our cities and the rational development of their infrastructures — transportation, communications, power. In short, it will take more technology, not less, to assure civilization.

More than to any other calling, it seems to me, the challenges of this new age are addressed directly to the engineering profession and what I take to be its basic mission: achieving maximum utility with least means. In the years ahead, as scarcities confront us with a whole new ordering of costs, I anticipate that "elegance," as engineers construe the word (getting the most for the least), will become not merely an *idealistic* goal but our most urgent *practical* priority.

I would not presume to prescribe new *directions* for engineering in this new era. I *do* know that the facts of world economic life in the new age demand that we address ourselves anew to devising ways of using less to make more — in short, to the productivity improvements that are so crucial to the fight against inflation.

For the same reasons, cost reduction engineering, unglamorous as it may appear, takes on a new urgency. Even processes from which we might have thought we had squeezed the last vestiges of excess cost will call for a new look as materials and energy sources once abundant grow scarce and dear.

To none of these prospects do I look forward with foreboding. I doubt that anyone trained in engineering does. Indeed, I am confident that you share my view that the age ahead, for all its rigors, will stimulate the engineering profession to new levels of technological accomplishment, new levels of service to the nation.

Indeed, it may produce a new engineering. Professor Jay Forrester of M.I.T. relates the "long waves" in our society's economic activity — the so-called Kondratieff cycles — to the rise and fall of technologies. We are, he suggests, at a point where further capital investments embodying refinements of traditional technology yield diminishing returns. What new burst of technological creativity will power the next great economic advance he does not predict. For my part, I will venture the notion that the infrastructure industry of the future will be what Professor Tony Oettinger calls "compunications" — the merged technologies of communications and computation.

It is an occasion for optimism, I think, that these two industries in which the technological leadership of the U.S. remains undisputed — communications and data processing — are precisely those industries whose products and services are likeliest to exercise the greatest leverage on the productivity of other industries and, most notably, on the service industries that have come to characterize so much of our economy and which heretofore we have considered uncommonly resistant to productivity improvement.

To summarize to this point, I believe it is crucial that Americans repair their current estrangement from technology. What is more, I believe that through a new commitment to technology, we can surmount our current "crises" with no more than a transitory slowing of economic growth. I will go farther and say that I believe that out of our experience with the new challenges now confronting us will emerge a stronger America — stronger for being sparer — than we have ever known before.

For that to happen, though, will require a broader, deeper understanding of what technology is and what it is not on the part of our fellow Americans. And for *that* to happen, technologists must become educators; engineers must be teachers.

I have come to this remarkable school to deliver this message because there is perhaps no place in the nation where it would be more quickly understood and — I hope — more quickly heeded.

IN MY VIEW these are times when the qualities of mind the engineering profession nurtures are much needed in our society ... and as much in the realm of public affairs as in technology.

No attribute of the engineer is more suited to these times than his habit of thinking in systems. Routinely on the job, the engineer considers what trade-offs — of strength for speed, of long life for low first cost — are necessary to achieve the design intent. Our larger society urgently needs lessons in the discipline of proportioning means to ends.

What the times demand is not a dramatic leadership but a reasoning one, a leadership disciplined by experience in matching aims to the resources necessary to achieve them, a leadership unafraid of complexity and confident, because it has done so, that complexity can be managed. Sharing that confidence with your fellow citizens may well turn out to be engineering's greatest contribution to these times.

I have come to this remarkable school to deliver this message because there is perhaps no place in the nation where it would be more quickly understood and — I hope — more quickly heeded. Your well-known and much discussed program for the training and development of humanistically literate technologists provides a fertile bed to replant the seeds of the idea that a technological society depends upon a technologically literate public.

So I bid the engineers and scientists among you to take on the role of public teachers, not as dogmatic apostles of the technology religion but as patient, objective explainers of what is so and what is not, remembering that in the end the pace of technological progress is not a matter to be decided by technologists alone but by the entire body of our citizenry. In the end, technological progress depends upon public acceptance. And that acceptance depends, ultimately, on public understanding.

I WANT TO COUNTER, and urge you to counter, the second and third of the trends I mentioned at the outset, trends that seem to me to endanger the vitality of this democracy: the acceptance of mediocrity and the belief that no individual's actions matter. Taken together, I would characterize these as a retreat from excellence.

What I have in mind you may gather from the fact that, of five "scenarios" the Hudson Institute is using in its appraisal of our economic prospects between now and 1985, the one it considers most probable is labeled "Muddling Through." What most characterizes this scenario, according to the Institute, is inaction. There will be a shortage of innovative leadership, the Institute opines, and what will principally motivate decision — or indecision — is a "fear of negative outcomes" — in other words, an unreadiness to reach high for fear of falling.

Is this the stirring challenge toward which you've pointed for the past four years? Is your generation ready to acquiesce to minimizing downside risk as the main aim of our society? I trust not.

As with the estrangement of Americans from technology, it may be that the current disposition of Americans to settle for the second best, the merely average, reflects the disappointment of hopes that may have been pitched too high in the first place. More particularly, some people say — and there may be some truth in it — that our current mood is simply a natural and perhaps inevitable reaction to the euphoria that characterized the outset of the 1960s. In that time, it seemed, there was nothing Americans might not do if they once set their minds on doing it. In the 1960s we came to believe that we could not only engineer our way to the moon, we could engineer the good life as well. And so we set out to create the Great Society. Under its banner we declared simultaneous wars on poverty and discrimination and ugliness, and we looked forward to victory in our time over all of these.

Today, at the end of another decade, and many hundreds of billions of dollars later, those victories remain to be won and our once-high hopes have been supplanted by a profound sense of the intractibility of social ills and a profound disenchantment that bureaucracies can do very much about them. Things simply don't seem to work the way they're supposed to.

In the 1960s we came to believe that we could not only engineer our way to the moon, we could engineer the good life as well. We declared simultaneous wars on poverty and discrimination and ugliness, and we looked forward to victory in our time over all of these.

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Nobody, for example, seems to be able to do anything about inflation, and the prospect that prices will just keep on going up and up and up is truly frightening to a great many people. Add to that the disenchantments that have come in the wake of Watergate, and you will have gone a long way toward explaining the cynicism a great many Americans have come to feel about the motives and standards that govern the principal institutions of our society.

What we seem unready to recognize, however, is that the decline in public confidence in our institutions is in fact a decline in confidence in ourselves. When institutions fail, it is because people fail. The crimes of Watergate, for example, of the widely publicized instances of political bribery by business, were not crimes of "the system" but crimes of individuals. After all, institutions can't tell right from wrong. Only people can. In short, it is a decline in the individual's responsibility to society — what in ancient days we called "civic virtue" — that is at the root of our current malaise.

Sooner or later, it is the personal sense of accountability of the people who compose them that determines the character of organizations ... and of nations. From its loss, through arrogance or insensitivity, have come our most shocking disillusionments. Upon its restoration depend the strength of our society and the strength of the institutions — its colleges as well as its corporations — that give it purpose and direction.

TO MY URGING of a renewed sense of personal responsibility to the larger community, it might well be objected that the sheer scale of our society, the complexity of its institutions, and the momentum of their undertakings so dwarf the individual that what one person might do or fail to do hardly makes any difference.

One might even go so far as to ask, can man effectively manage complexity?

My own experience over more than four decades in the management of one quite sizable and highly complex enterprise has left me with the conviction that the answer to that question is an unqualified yes.

Not everybody shares that conviction. Indeed, a sense of powerlessness in the face of the sheer scale and intricacy of contemporary institutions appears to have driven a great many Americans to seek their satisfactions in, so to speak, the cultivation of their own gardens. Perhaps it is to this same sense of powerlessness that we can ascribe the disposition of a good many young people to strike out — sometimes it appears almost as a conditioned reflex — at virtually every aspect of the so-called Establishment. Particularly troubling is their readiness to ascribe malevolence to people — business management, for example — who are surely no less humane than they and who, in the face of complex circumstances, are simply trying to do the very best job they know how to do.

I can only hope that history will be sufficiently discerning to recognize that the heroes of these times are not those among us with the most strident voices, but rather those quiet, patient people who, professing themselves no brighter than the rest of us, set off to find, in science labs and in engineering offices, the answers to the hard questions that confront us.

Let me say this with as much passion as I can muster: This is no time for a retreat from rationality. Granted that our society's problems are difficult and deep-seated; granted that the search for their solutions can be profoundly frustrating; granted too that solutions that are best for almost everybody are almost certain to meet the perfect satisfaction of nobody — granting all these things, I nonetheless urge that you engage yourselves in the political process that will in the long run shape the future of your town, your state, your country.

For only as each one of us is ready to commit himself or herself to the arduous and unceasing contest of ideas and interests and values by which Americans set their goals, establish priorities, and make up their minds on matters of public policy can we be assured that when you stand where I stand now, a generation hence, you will be able to say with confidence and pride that in this land of ours freedom still lives.

FINALLY, whatever you choose to do in the years ahead, content yourself with nothing less than doing it just as well as you know how. Whether it's spoons or brook-sized turbines or space capsules that you make, make them the best.

What difference will it make?

It's understandable, I suppose, that as the nation's population grows, as its institutions grow larger and more intricate, that some people should come to think that what any one individual might contribute to the quality of our national life is becoming of less and less consequence. It is to that dispositon, I surmise, that we can attribute the shoddiness of workmanship we encounter all too often in the products we buy these days and the bored indifference with which we are greeted by the employees of so many institutions, both public and private, whose business it presumably is to serve the public.

But the opposite is true. The more interdependent society becomes, the more crucial is the performance of the individuals who make it up. An analogy from technology will demonstrate this. In our business we have learned that, as the numbers of interdependent components in our vast communications system grows, the more vulnerable to failure the system becomes. We call this "the tyranny of large numbers." Overcoming it depends on the degree of reliability we build into each and every component. Some of the components of our current electronic switching systems are manufactured to a standard that, translated into layman's terms, calls for no more than a single failure in ten thousand years. We call that "mean time to failure." What I am hoping, then, is that each of you, individually, will conduct your life as if the nation's very future depended on it ... because it does.

Even were this not the case, I would have no more important message to convey to you today than to urge upon you a will to excellence. It was the gist of my final message to my colleagues in the business in which I spent almost 43 years. It is the essence of what I've learned.

IN THE FINAL ANALYSIS, it is not we who exist for society's sake. In truth, societies, nations, institutions exist for no other end save the fulfillment — what we used to call salvation — of the individuals who make them up. We have no greater responsibility, then, than to be and do — and to help each other be and do — the very best we can.

In the end, the pace of technological progress is not a matter to be decided by technologists alone but by the entire body of our citizenry. Technological progress depends upon public acceptance, and, ultimately, on public understanding.

ENERGY: Changing sources in mid-stream

What's to do about energy?

Everybody's got the answer, and nobody's got the answer. The one thing we know for sure is the problem. The earth is running out of fossil fuels at an alarming rate. However big the reserves may be, they are finite, and they are being exhausted.

Everybody know's we've got to find other alternatives — and we've got to make them work. The remaining question is: How do we get from here to there? How do we move from an economy, a lifestyle, and a technology based on abundant energy provided largely by oil and gas? How do we arrive at a state where we can produce enough energy through the use of renewable or truly unlimited resources? How do we temper our habits and our lives to cut out the waste and the frivolous uses of energy that have so long been a part of our society?

We are entering an age of real transition: change will dramatically affect our jobs, our homes, our transportation, how we spend our time, and how we conduct our lives. Many things we have taken for granted all our years can no longer be assumed. One is reminded of the Chinese curse: *"May you live in interesting times."*

The articles that follow were first presented on campus last spring. They raise some interesting questions, and they propose some even more interesting solutions.

Toward a unique coalition

by Evelyn Murphy

ONE OF THE MOST CONFUSING TOPICS of public debate is the energy crisis, especially in Massachusetts and in New England, where choices are complex and difficult. I want to talk about energy in simple, straightforward terms with a minimum of technical jargon and a maximum of common sense.

The need right now is to act. We have enough data. We have thought about and analyzed energy problems extensively. We've considered so many alternative options and courses of action that we have confused and sometimes even lost sight of the energy crisis at hand. But despite the plethora of information and options, there has been an absence of constructive action by government — state and federal, institutions with resources and leadership potential — to start the necessary transition in energy production. It is clear that a transition must take place, that we must move toward an era of using energy through renewable natural resources, such as wind, solar energy, ocean, and biomass. I need not remind anyone who manages the family budget, anyone who shops for food nowadays or who buys clothes or goes to the gasoline pump, that we're no longer an affluent society. This nation, and particularly New England, is in grave economic straits. Inflation, driven primarily by energy costs, has hit hard in Massachusetts and we suffer from some of the highest food and energy prices in the country. We all know the situation; it's not a new phenomenon. The signs of economic strain and curtailed life styles have been with us unrelentingly for years now.

And yet what positive steps are we taking? As a consumer are you using less energy than a year ago — less gasoline in your automobile, less home heating oil at home? Probably not. Like me, you probably turned down the thermostat three years ago and energy conservation stopped there. But why is it that we have not acted as individuals? The President of the United States has told us on two separate, dramatically televised occasions, that this nation is in trouble, that the energy crisis is the moral equivalent of war, that we must pay more to use less energy. Many of us believe him. He is the most important public official in this nation and he has the most information on the situation. We want to believe him.

But statements from other official sources provide excuses for inaction, as we hear a cacophony of voices describing the status of oil supplies. This spring the Secretary of Energy testified that this nation is short 500,000 barrels a day. The Congressional Research Service, on the other hand, argues that the shortage of oil is only 80,000 barrels a day. The big oil companies talk about a worldwide deficit of 2.5 million barrels a day. Confusing and often contradictory data allow us to ponder rather than act, waiting prudently (we often assure ourselves) until the full dimensions of the problem are understood.

Confusing, conflicting data raise deep suspicions in all of us that the energy crisis is overblown. Permeating our society is a feeling that perhaps there is no problem except that invented by the oil companies for their own financial gain. But I suspect the principal reason that we do not act is a feeling of helplessness. How can you or I make a difference in matters seemingly ruled by OPEC prices, by Iranian political turmoil, by the big oil and nuclear interests, by the mammoth federal bureaucracies? And yet surely we should be further along toward an age of energy through renewable resources, not just at the starting point, which is where we are now.

Where have the leading institutions been? Not one utility company in this country has made significant investment in anything but oil, coal, and nuclear plants. I do not mean to point a finger of blame at the utility companies. That would be too simplistic. Much of the responsibility rests with the national policy on energy. $12 billion in federal subsidies maintain an artificial preference for conventional fuels. Federal expenditures for alternative energy were recently doubled, up to $500 million. That's one-twentieth of the $12 billion annually spent on the other types of energy. That underscores the serious bias against alternative and renewable resources. Is it any wonder, then, that the utiity companies of this country are still locked into fossil fuels? They are simply following the public policy that speaks the loudest — the federal budget.

We can address the immediate problems — the oil supplies, the question about safety of nuclear power, the rising demand for oil and electricity — and we can start the transition into a different era. But the federal government seems primarily focused on the immediate problem. I believe, therefore, the only way we're going to get on with transition to the use of solar and hydro and winds and rivers and oceans, is if we do it ourselves at the grassroots level, here in Massachusetts, here in the communities of New England. We can do it ourselves. I want to suggest three ways, describe three elements of how we proceed from here.

Ms. Evelyn Murphy is currently a Fellow at the Harvard Institute for Politics, and was formerly State Secretary for Environmental Affairs in the Dukakis administration. Ms. Murphy holds a B.A. in mathematics and a master's degree and Ph.D. in economics. Before joining the Dukakis administration, she was a partner in Lewelyn Davis Incorporated, of New York City, a firm of international planning consultants.

FIRST, BARGAINS MUST BE STRUCK in the construction of the next large, so-called base-load electric generating plants. I think of this as an investment in the future. The most important step in getting a transition under way hinges on the construction of the next large plant. In Massachusetts we'll need at least one more plant to carry us through that transition, say through to the year 2000. Nowadays, when plant construction is announced, large protests are often successful in blocking construction; at the least they can cause costly delays. The proposed plant may use coal, such as in Kaiparowits, Utah, or nuclear, as in Seabrook, New Hampshire. Neither option is exempt from protest, and neither option is particularly desirable. In different ways, each jeopardizes people's health and safety. But these are the only two options which are technologically and politically feasible and available now to meet large-scale demands. Therefore, the need now is not for us to be completely negative through protests that stalemate our energy production. The need is to be demanding in a shrewd way, to force the bargains that will move us through to a transition and get us into a new era of energy.

I can envision a meeting, or several meetings, of environmental groups like the Conservation Law Foundation, of consumer groups like Mass. Fair Share, and of the building trades, together with the next utility company that proposes a major plant. At this meeting, the public interest groups can say to the officials of that company, "Look, we will not oppose the building of that next plant if and only if you will first provide hundreds of millions of dollars towards solar, towards wind, towards those ways of providing energy and heat and light through renewable natural resources."

That's real money. That would represent a significant commitment by that firm toward a new era in energy. I think that thoughtful, realistic, sensible utility company executives will probably welcome that bargain. They are genuinely concerned about meeting the short-term responsibility for power supplies, and many envision with us the same long-term goal of reliance on renewable resources for energy supplies.

In fact, all groups benefit from that kind of bargain. Certainly consumer bills will be lower because the utility did not incur the added costs of construction delays. (And those costs will be there, whether beforehand in the controversial "construction works in progress" charges or afterwards.) Certainly the environmentalists benefit. The faster we move toward the use of renewable resources, the more our environment will be cleaned and better served. And labor, in addition to its environmental and consumer concerns, gets jobs.

THE SECOND ELEMENT is changing our expectations. We expect to have lights turn on at the flip of a switch. We expect to have air conditioners work in sweltering summer heat. We expect to have the dishwasher, the clothes washer, the dryer, the electric can-opener, the toaster, the blender, the stereo, the television, the hair dryer, work on instant command. But what if the toaster and the blender and the hair dryer had to wait several moments until the load on the entire electric generating system lightened some? And so what if we had a brownout now and then? Our expectations about energy have become so pristine that utility companies build more capacity that necessary in order to avoid, at any cost, a blackout or brownout.

Utility companies could get more innovative in spreading the demand for electricity over 24 hours a day. The public could get more thoughtful and curtail its wasteful or needless use of energy. All of us could conserve even more on real needs — on automobile gas, on home heating, on lights. But again this is going to take the actions that we need at the grassroots — to change habits, to change fears of damnation by the public and the press if a brownout or a blackout occurs. And in the process of changing these expectations, there are enormous opportunities for initiating at the grassroots level, the widespread use of solar panels for heating, of wood burning stoves, and so forth.

My final comment about actions that move us into a new age of energy, has to do with leadership. One of the most infuriating aspects of the breakdown of the Three Mile Island nuclear power plant was the instant defense of pro-nuclear forces in the state, the federal government, and the utility company that ran the plant. As we learned, the plant's operations were not even under control and officials were still talking privately about evacuation. Yet some of the most important public officials of this nation and this state were reassuring us all, with unwavering conviction, that nuclear power is safe. The leaders of protest against nuclear power became just as strident in their condemnation of nuclear power. That kind of public leadership is irresponsible. And that kind of private response only insures extended protests that do not advance our energy needs at all.

THERE IS AN ALMOST DESPERATE NEED for sensible, thoughtful, realistic leadership right now: a leadership that can be openminded, that can reevaluate positions previously held; a leadership that can attend to both the short-term energy problems and the transition to a different energy age; a leadership that turns energy for protest into forces for progress. Certainly we cannot abandon the nuclear power plants that operate now. But the additional safeguards that will be required in the aftermath of Three Mile Island have probably shifted the economics of new plant construction to favor coal plants in the immediate future.

So rather than fight old battles about people's health and safety in coal vs. nuclear, let us be politically and financially realistic and look to coal plants. And let us put our energies on making those bargains with each utility company that proposes another large plant. Let us get on with changing expectations. Let us get on with energy conservation and with increased efficiency in our existing operations. That will get us moving toward an age of energy through renewable resources.

And let us recognize that, given the recent tenor of national and state leadership, getting serious about the transition to an era of energy through renewable resources means doing it ourselves.

How the electric utilities can cope.

by Edward Brown

I'D LIKE TO START by describing our company and tell you where the utilities have been over the last few years. New England Power Service Company is the company that provides engineering, construction, and administrative services for New England Electric System. Our affiliated companies are Massachusetts Electric, Narragansett Electric in Rhode Island, and Granite State Electric in New Hampshire.

I'd like to describe some of the projects our companies have been involved in over the past few years, projects we hope will help develop alternatives. I'll describe why we're involved in some of these projects and how we see alternatives fitting into the electric generation picture.

First is a solar water heating project. We have 100 test units on customer's premises throughout New England now entering their third year. This is the first major test program of this size and scope in the country. We're involved in the installation of a photovoltaic electric system at Beverly High School. We're participating in the redevelopment of a small, low-head hydro station in Lawrence, Massachusetts. This is not a utility development. This is a development by a private firm called Lawrence Hydro Associates, and it is the first federally licensed urban hydroelectric development project in the country. We're in the process of converting three units from oil to coal at our Brayton Point Station, at an estimated cost of over $100 million. This will save 10 million barrels of oil per year.

We're involved in the final stages of modifying one of our units in Salem to use a coal/oil slurry mixture in order to reduce dependence on oil. This is the first use in the nation of a coal/oil mixture for electric generation. We're drilling in the Gulf of Mexico and in the southwestern United States for oil and gas in order to reduce our dependence on imports. Last year we brought in and used the first oil that we drilled and found ourselves.

We're developing load-management techniques designed to shift peak loads and smooth out the growth of peaks so as to reduce demand in the future ... and reduce the new construction necessary to meet these demands. And there may well come a day when we will be able to control water heating and residential heating. We may not

control your electric blender but we think we can get to the point of controlling significant amounts of load. We're doing this by using our own power lines to send signals out and get signals back — techniques our company has patented. Furthermore, we're exploring very seriously the possibility of constructing a 50,000 kilowatt wood-burning generating plant somewhere in northern New England.

We are active participants in the Block Island wind generator project. We are interested in exploring, and will get involved in if possible, the possibility of a solid-waste generating plant using trash.

We're in the midst of a crisis situation today which will touch the lives of each of us in ways that we can't now even imagine. Our standard of living, the way we transport ourselves, our industrial output, productivity, efficiency — all are faced with shortages of energy. I can guarantee that these shortages will occur. We're seeing it today, week by week, in attempting to obtain oil for our oil generating plants. They'll persist, and they'll get worse unless we take steps to shape energy policies that will reduce our dependence on oil.

Conservation is probably the least expensive and the most productive alternative that we have. We also feel that alternatives such as wind, solar, wood, biomass, must be developed. We feel that the addition of base-load plants (both coal- and oil-fired) are necessary, although we would like never to build another oil plant. We feel that nuclear plants are necessary.

Let me define what I mean by base-load, because the alternative picture does not apply to base-load electric generation. In a typical day, a load curve would start low at midnight, increase in the morning, decrease around noon time, come back up in midafternoon to a peak, and then drop back down during the evening to the level it reaches at midnight. Now, base-load plants must supply this minimum level. Peak load plants must supply part of the daytime highs. And intermediate types of plants, those that can cycle up and down easily, must supply the remainder of the demand. So when I talk about a base-load plant, I'm talking about a plant that must be on line 24 hours a day, seven days a week, month in and month out.

In shaping our national policy, we have to come to grips with three almost irrefutable facts. First, the days of abundant, low-cost energy are gone. Every alternative will be more costly in the future; some will be more practical than others. Second, the United States' continued dependence on OPEC, the Organization of Petroleum Exporting Countries, has become a no-win situation. In 1973, the oil embargo year, we imported 35 percent of our oil. Today we're importing 45 percent of our oil, at costs five times what they were in 1973. We're vulnerable to cartel price hikes and supply interruptions. Third, when it comes to base-load electric power generation, I see only three options — coal, nuclear, or shortages. Alternatives simply cannot fit into the picture on base-load plants. They can be fuel savers in the intermediate range and they can fit in on peak.

Coal has its own problems and will do well to carry the burden that's been placed on it. Nuclear energy, even with the present situation, is an imperative. The Three Mile Island incident is of great concern to us and to the industry. I can only hope that there's no rush to judgment as a result of Three Mile Island and that the industry and the regulatory bodies complete their assessment and evaluation as fast and as competently as they can. We can learn from this event, and we will implement whatever comes out in forms of new procedures, revised equipment, or safeguards. Based upon what we know about the sequence of events at Three Mile Island, we've already instituted a review of all nuclear plants in New England in order to make certain that similar circumstances cannot and will not happen here.

The remainder of my remarks will center on the New England energy situation and the alternatives for the future. Much of my data is derived from a study by the New England Energy Congress. The New England Congress was a group of 120 people of varied background from industry, academia, the trade unions, social agencies, environmental groups, etc., brought together under the auspices of New England Congressional Caucus and Tufts University.

NEW ENGLAND DEPENDS UPON OIL for about 80 percent of its total energy requirements, compared to about 50 percent in the United States as a whole. We're extremely vulnerable to interruptions in supply in New England, and to price hikes, and we're seeing that almost week by week now. In terms of energy consumption, there isn't much difference between the United States as a whole and New England in terms of where this energy is used. Residential use accounts for about 26 percent in New England vs. 14 percent nationwide. (That's understandable because of weather extremes in New England.) Transportation is about 25 percent vs. 23 percent; utilities use 24 percent vs. 26 percent. So as far as the distribution of energy resources and where it goes, there's a not great deal of difference between the United States and New England.

Edward Brown is president of the New England Power Service Company in Westboro, Massachusetts. A professional engineer, he's been with New England Electric System since 1956, holding various engineering and administrative positions, including director of management sciences, project manager for the Bear Swamp pump storage hydroelectric project, and vice president for construction and major projects. The New England Power Service Company is heavily engaged in a number of research and development projects on various alternative energy sources. Consequently, as president of New England Power Service Company, Mr. Brown is in an excellent position to comment on the transition to renewable sources from the electric utility's standpoint.

The New England Energy Congress, in making a projection, assumed that the growth in total energy in New England by the year 2000, would be about 1.5 percent per year. (Just to put this in perspective, the nationwide growth have been in the range of 3 to 4 percent historically.) Putting everything in terms of millions of barrels of oil per day, this means that whereas we're using about a million and a half barrels per day in New England now, by the year 2000, they say it should be slightly over 2 million barrels per day. If it grew at 2.5 percent, which I think is a reasonable assumption, it would be 2.6 million barrels per day. The difference between these two figures, the group says, will have to come about through conservation. But even so, we will use about 40 percent more than we do today.

Where will it come from? Today, in terms of natural gas, coal and nuclear, we're using the equivalent of 300,000 barrels per day. The forecast presented by this group assumes that, by the year 2000, this will about double to almost 600,000 barrels per day. This group assumed that actual usage of petroleum products in New England would decrease from 1.2 million barrels per day to about 1 million, so in the year 2000 oil will account for about 50 percent of the total, which is where the national average is today. The remainder, this group says, would be made up of alternatives. The alternatives, they project, will account for about 500,000 barrels per day equivalent. That is about equal to the projection on nuclear, coal, and natural gas in the year 2000. Furthermore, this is based on the assumption of 1.5 percent growth, which we have not achieved over the last two years.

If we do not, through conservation, keep the growth at 1.5 percent, and if the alternatives do not develop to the extent projected here, then we have to fall back on something else. And that must be either oil or coal or nuclear. If growth is not kept down to 1.5 percent, then that lack of conservation will have to be made up through oil or nuclear or coal. This is the thesis I wish to pursue.

Growth must be suppressed through conservation and alternatives must be encouraged to develop. Where do the alternatives come from? The New England Energy Congress sees the doubling of hydroelectric by the year 2000. They see a 10 percent increase in wood-burning every year between now and the year 2000. They see 25 percent of all new homes from now to 1985, and 50 percent thereafter, fitted with 1000 square feet of solar collectors. They see one-half of existing housing units retrofitted with solar water heaters.

In terms of electric base-load generation through alternatives, my company sees alternative potential in only three areas. First, wood — we see the equivalent of 900 to 1200 megawatts of electric capacity. How big is that? One of the Seabrook units is 1150 megawatts. Solid waste — we see the potential for 300-500 megawatts. Hydro — we see an additional potential for 400-450 megawatts. All of these are much more costly than coal or nuclear alternatives. These numbers that I'm quoting are much less than half of those shown in the New England Energy Congress report.

WE'RE KEENLY AWARE that it takes 12 to 14 years, under today's environment, to plan, design and build a coal-fired or a nuclear generating plant. This means that if a plant is going to be needed in 1992 or 1993, then we have to start planning for it today. So let's keep our options open. Let's go ahead and push for the alternatives, develop wind, develop solar, develop wood. But let's not close our options today. In some quarters, the prevailing belief is that the development of alternative energy sources is somehow in competition with the electric utilities (or that we think it's in competition with us). That's not true. We recognize the need to develop these alternatives, particularly our own New England native energy alternatives through renewable resources. We see these alternatives not as a threat but as a challenge and an opportunity to do something about a terrible situation.

In closing I'd like to address one remark Dr. Murphy made. She suggested that it might be to everyone's opportunity and advantage if, for the next major plant, utility companies could sit down with the environmental groups, the social groups, the regulatory groups, etc., and make a commitment with these interest groups. I would agree to making such a commitment on the basis that the construction and operating license for a plant would not be held up. We would agree to make a commitment in terms of millions of dollars for research and development in alternative sources. And I'll put that in writing.

Developing and marketing a new technology.

by Robert Mitchell

THE NORTHEAST SOLAR ENERGY CENTER is a new, not-for-profit company. We are the agents of the Department of Energy to accelerate the commercialization of solar technology in the northeast (New England, New York, New Jersey, and Pennsylvania). When we say solar, we're talking about the renewable energy resources that both Ms. Murphy and Mr. Brown talked about. We started out with the responsibility for domestic solar hot-water systems, passive solar heating in residences, and what have you. More recently the Department of Energy has added active solar space heating, small wind (below 200 kilowatts), and woody biomass. And there is agricultural process heat and industrial process heat.

Two things are very important to anyone who is considering solar and indeed domestic solar hot water heating — the recently passed National Energy Act, and the tax credit and HUD grants that are available in states like Massachusetts. We like to talk about a 40 percent "discount" on solar hot water, that's made up of two elements. The average price for an installed hot water system is about $2,500. The HUD grant, for those systems that qualify (and most do), is $400; the federal tax credit amounts to an additional $620; and so the cost to the consumer is $1000 off the $2,500. This makes the domestic solar hot water system, at today's energy prices (particularly electric and heating oil prices in most of the areas of New England), quite viable. Some states in New England have additional tax credits. Vermont, for instance, has a tax credit that will reduce the cost to the consumer to something like $800. With an opportunity like that, indeed there is every incentive to go the solar route. The technology is here, and the governments, federal and state, are providing the cash flow improvers that are so necessary.

STARTING AT THE TURN OF THE CENTURY, our demands for energy in the United States were pretty straightforward and relatively low. And then, in the late 1930s, we became the arsenal of democracy. Our demands for energy grew exponentially. Of significance here is the way coal use fell off since 1920; from the 1930s on, our extraction and use of coal in the United States has remained pretty much at a level.

So our growth in energy demand has been satisfied primarily by the use of liquid petroleum. It happens that domestic petroleum picked up most of that growth. However, in the late 1960s that also leveled off. We started to use more imported petroleum. Of course we still had domestic natural gas. The input of imported natural gas, geohydro, and nuclear energy were relatively insignificant.

Let's look just at petroleum itself. Up until the middle 1940s, the United States was a net exporter of petroleum. That shifted, and we started to import a little bit; but we did not quite concern ourselves, because our production continued to grow. And when production from our own wells leveled off somewhat, importation of oil continued to grow. But we still didn't worry, because our finds of domestic oil, our proven reserves, grew as our production grew.

But then in the late 1960s things changed. We started to draw down our proven reserves faster than we were finding new ones. At that same time our demand for oil continued to grow, and we relied more and more heavily on the foreign market.

By 1973 we were importing a considerable quantity of oil, something like 37 percent. So our proven reserves fell off, our production fell off, and even during this period of national recession (1974-75), we imported more oil, both volumetrically and as a percentage. Our oil use continues to go up. Our production continues to go down, except for Alaska. Next year, when we have the statistics, you'll see a little blip in the charts for Alaska, but the proven reserves continue to go down, as does production. It's a very dismal picture

As we look at sources for this oil, the picture becomes even worse. Our imports in 1973 were 35 percent; in 1976, 43 percent. The current level is almost 50 percent. This is especially significant because we used about the same amount of petroleum in 1976 as in 1973. So we had to import more. Let's find out source of this supply. From 1973 to 1976, Venezuela and Canada, our friends to the south and to the north, greatly reduced their exports to the United States. In fact, Canada's stated policy is that by mid-1980 they will be exporting a net of no petroleum to the United States. Venezuela has deliberately cut back its own production.

So we had to make up both the increased quantity of imports and the shortfall in imports from Venezuela and Canada. This was made up by increases from Libya, Iran, Algeria, Indonesia, Saudi Arabia, and Nigeria. So our energy crisis is really an oil crisis, and the actions that we must take should be directed toward reducing our dependence, or at least controlling our dependence, upon foreign sources.

In New England, 80 percent of the energy we use is satisfied by oil, and 79 percent of that comes from imports, either indirectly through refineries outside New England or directly through product import. The biggest ele-

ment in this import is residual oil, which is used to generate over half of our electricity and to drive industry. Some 92 percent of that oil which generates electricity comes from foreign sources. So our cost of electricity in New England is extremely sensitive to the oil that we get from the world market.

Our problem in the United States is basically twofold. We use too much of what we have the least of, and we use too little of what we have the most of. If we look just at fossil fuels, we'll see that coal represents over 90 percent of the proven reserves of fossil fuels; and yet we use coal to satisfy only 18 percent of energy demands. Oil and natural gas represent less than 10 percent of our proven fossil fuel reserves; and yet we use those two in combination to satisfy over three-fourths of our energy demands. This is why we have the problem.

New England's problem is more severe than the United States' problem. We rely upon petroleum to satisfy 80 percent of our energy demand, plus another 8 percent from natural gas, which brings our total up to 88 percent, against a national average of around 75 percent, made up from about 50 percent oil and the rest natural gas. That natural gas in the United States is used primarily to generate electricity and to power industry. In the national energy act, these uses of natural gas will be eliminated by the year 1990.

Of significance also to the New England region is our mix in the generation of electricity. In 1976 about 57 percent of our electricity was generated from oil — and oil is the most expensive energy available to us for that purpose. The figure for the whole United States is only 16 percent. The United States uses a lot of coal, and this is going to grow and grow. Over one-third of the electricity generated and consumed in New England comes from nuclear power. The cost of that nuclear power at the distribution point is just a little more than half the cost of the electricity generated from oil. So when we're looking at alternatives and actions, we must look very carefully at the cost impact of those actions when we compare the United States and New England. We use very little coal here, so we have no real basis for cost comparisons. But natural gas in New England costs us twice as much as the average national cost per unit. That is because we're at the end of the pipeline, and also because we inject a lot of synthetics into our gas system.

Petroleum costs us about as much as it does the rest of the United States. Because of the amount of electricity we generate from oil and the high cost of that oil, electricity costs us about 45 percent more than the national average. As a result, our total energy bill for a given unit size is about 23 percent higher than the United States average.

WE MUST DO THINGS DELIBERATELY in order to correct this situation. We cannot merely snap our fingers. There are a number of alternatives. The first is conservation. For a report prepared in 1975, the six states of New England worked together with their planning offices, their environmental offices, their energy offices; worked with industry, with the utilities, and with the federal energy administration; all working together with the New England Regional Commission acting as the secretariat. Each state identified actions that it could take. These were carefully examined and adjusted to ensure they were realistic, not overstatements and not understatements. The overall effect of these various feasible actions was that, by 1985, conservation — improved energy management without deprivation — could save New England consumers almost 100,000 million barrels of oil a year.

The second option is alternate energy sources. We see 40,000 million barrels here. A good portion of that could be use of wood, hydro, reclamation of solid wastes, and indeed direct solar. Direct solar looks very small in the total picture, but it's significant. It's the equivalent of solar retrofit in 200,000 homes in New England, and there are now less than 2,000 homes retrofitted with solar. This alone represents 1.5 million barrels. What we had hoped was that, during this short time period, we would have the 200,000 homes, but by the end of this period the rate of growth would be phenomenal. By the year 2000 we could have 12 or 15 percent input by solar. But we've got to take that first real step. We haven't done it yet. There is not a total commitment. We probably will accomplish 50 percent of these projections.

We look at high coal usage, and about 40 percent of this will be accomplished, thanks to Dr. Murphy and to New England Electric too. Six nuclear plants could have been brought on stream by 1985 in addition to the seven that we have now. But, the way things are going, I doubt we'll have more than one, maybe not even that, on line by 1985.

The outlook for Massachusetts is not a good one for controlling and reducing use of petroleum. And, I repeat, our energy crisis is an oil crisis. We are too dependent upon the Arab OPEC nations. We do not have the luxury of selecting options at this point. We have got to work on every front. Not only must we develop the alternative energy sources oroperly, bringing them into play, including conservation; we must also enhance our current electrical generating capabilities by increased coal use.

Mr. Robert Mitchell is manager of the communications division of the Northeast Solar Energy Center. Mr. Mitchell's responsibilities at the Solar Energy Center include coordinating all programs and projects in the northeast region for public information, solar education, solar information service, and the technical information library. Prior to joining the Solar Energy Center, Mr. Mitchell served for four years as the New England Regional Administrator of the Federal Energy Administration. Before that he was energy advisor to the governor of New Hampshire and chairman of the New England Energy Task Force. The Task Force was organized in 1975 and composed of federal, state, and private sector officials. Its purpose was to assist in improving New England's poor energy posture and to aid in the planning, programming, and implementing of actions designed to accomplish regional energy goals. Mr. Mitchell was also the chairman of the New England Federal Regional Council from 1976 to 1977.

Questions and some answers.

QUESTION: Ms. Murphy, have you talked with the Clamshell Alliance about your proposal? They seem to have more access to making things public than Mr. Brown does. I wasn't aware of almost everything Mr. Brown said.

MS. MURPHY: I'm not sure Mr. Brown and I are together on it yet. My proposal was hundreds of millions of dollars; his statement was millions. I'm not putting that in an antagonistic way, but I don't think it's going to be just a happy little fest of all sitting down together. I think the public interest groups really have to push on a company like New England Power. It is exploring some alternatives already. It has the potential and the feasibility for doing them. It is probably one of the most progressive utility companies in New England right now, and it's headed in the way we want, but the real issue for us is to push much harder, to get there faster with more money behind the effort. I haven't talked with the Clamshell Alliance about this. I'm still waiting to make sure that indeed the hundreds of millions of dollars might be behind it, not just the millions.

QUESTION: In pursuing that question a little bit, isn't there a problem here with respect to the responsibility of the utilities to provide energy at the least possible cost and their liability if they don't do that? Isn't some kind of restructuring needed here to allow them to make that kind of a deal, even though it's going to cost us more, at least temporarily, as their customers?

MR. BROWN: That's why I said millions and not hundreds of millions. Let me just put our company in perspective. Our total revenues are around $800 million a year, over all of New England. Our budget for all research and development is currently around $4 to 4.5 million per year; and that's the budget as approved by the Federal Power Commission. I'm not free to make a commitment in excess of what we have already received approval for. However, we do have discretion over where that money goes. When we talk about hundreds of millions of dollars, I feel there's clearly a role for the federal government here. The company can't put a hundred million dollars a year, or even a hundred million dollars a decade, into this unless there is some restructuring.

MS. MURPHY: I want to pick up on that for a minute. In the process of trying to think this through for today, one of the things that became clear to me was that, when we talk about energy, we have to listen to two different dialogues going on at the same time. One is the dialogue about the energy problems and crises right now — oil dependence and all that. The other one is about the future. When we talk of $800 million of operating revenues, and then think about $4 million of R&D money going toward new things, we see clearly the mismatch, the imbalance between the two. Even in the dialogue here today, we come back to talk mostly about oil, mostly about the existing situation. Our current vulnerability drives so much of the public and federal attention to the existing situation. But there's nowhere near a balance, nowhere near the same kind of time, much less money, being put into the necessary shift toward the future. And that's why I think the transition, if we're going to make it, has got to be pushed in a much harder way. It may be that we need a different legal structure for doing it, but I still think the utility companies must play an absolutely essential role in effecting that transition. They have the money to do it if we can provide some means for making those substantial financial readjustments now.

MR. BROWN: I'd like to respond by saying we don't make money just for the sake of making money. Everything is based upon a cost of service and is based upon an approved rate structure. We can't make money out of thin air. It has to come from some place — either from investors putting money into the business or from customers paying for electricity received. I just want to be sure everyone understands we can't print money.

PROF. DOUGLAS WOODS (Social Science & Policy Studies): Mr. Brown, my conception of the regulatory process is that you'd have to get approval from the Public Utility Commission in this state to include, for instance, a massive increase in your research budget among those operating expenses that are taken into account in establishing rates. Is that correct?

And if so, what is your expectation about their likely attitude toward a request for, say, $100 million in research funds?

MR. BROWN: I'm glad you raised that question because a distinction has to be made between state regulatory bodies and the federal regulatory bodies. New England Power Company is regulated by the Federal Power Commission and I think they'd be much more amenable to a heavier research and development program than a state regulatory body. Whether we like it or not, a state regulatory body is more politicized than the federal. They're closer to the consumers; they get more pressure from the consumers. But, because we operate in more than one state, we are regulated by the Federal Power Commission; our retail companies are regulated by the state commissions. I think the federal commission would be much more agreeable.

QUESTION: Ms. Murphy said that, because of the inaction of the federal and state government organizations in effecting the transition, we really have to do it ourselves. To me this means letting the private sector do it, and I agree. I think we have to do it ourselves. My question involves the problem of how we do it ourselves when, in fact, the federal and state governments collect our money and create the policies and the tax incentives and the subsidies involved in this whole issue? How do we do it ourselves when they have so much control and can really stop us from doing it?

MS. MURPHY: I think two things have to happen. I believe there can be the kind of public pressure, public interest group pressure on utility companies to make that transition happen faster. I also think, in doing it ourselves, that the general public and even some of the industries have to go back to the state and the federal governments and tell them that they've got to get more serious about this. Because when a coalition of utility companies and consumer interest groups and environmentalists can walk into the state or federal government and say, "we've got to have some changes here," then things will start to happen. But it'll take a fair amount of organizing. We've lost a lot of years, and the federal government continues to invest heavily in the existing system. It's going to continue in that direction unless coalitions of public interest groups and the utility industries can get together and face government. Then we may have a very powerful political force. I can't see any other way.

QUESTION: It seems to me another route for making transition, besides this bargaining pressure, is to create incentives for the utility. Is the utility at the present time very favorably disposed to load management and other conservation technologies? If so, what does it consider its financial incentive? If not, what would you need, what kinds of financial incentives, to take an interest in conservation?

MR. BROWN: One kilowatt of new capacity today costs around $1,000. One kilowatt out of a peak of 3 million kilowatts. If we can avoid having this peak demand increase, or we can reduce this peak, then we save an investment of $1,000 for every kilowatt. Now that's one whale of an incentive.

QUESTION: Why is that an incentive? Don't you recover that investment from the rate base?

MR. BROWN: I wish we did.

QUESTION: What happens? Could you describe what actually happens?

MR. BROWN: It's more and more difficult to raise money on the open stock market. Look at our stock. People think we're really making a killing. And yet, if we have to raise money in the market today to provide that additional kilowatt, we have to sell our stock below book value. That's a real incentive to conserve.

PROF. WOODS: Let me phrase the question a little differently. Do you expect that your stock will continue to sell below book for the indefinite future, that you're always going to have trouble getting a decent rate of return on funds invested in new plants, that you'll never want to return to the days when utilities were always anxious to expand their rate base?

MR. BROWN: I'd like to see our stock selling above book, because that benefits everyone, not just our investors but our customers as well. That's a fact. Do I think I'll see the day when it will sell above book? Yes. We're recovering from a series of crises, not of our own making, and I think it will sell above book. But when it gets above book, will we want to go back to build, build, build? No. Because regulatory commissions today are not permitting a return that's adequate on this costly plant so I don't see us going back to a go-go mode and doing a lot more building.

QUESTION: If you had very strong conservation, do you think the effect would be good for the company financially?

MR. BROWN: Yes. And that's an interesting point. Right now we have a 38 percent capacity reserve. This is used to criticize us. The reason for that reserve is that, in 1973 and 1974, we had four large units come into service in anticipation of continuing growth. Well, the growth didn't continue; it dropped off. So we have a 38 percent reserve capacity. If we grew at 4 or 5 percent a year, that reserve would only last us 5 years and we'd have to go right back into raising money again. I'd like to see conservation take hold so that capacity will last us ten years ... and by that time I might be ready to retire. That's as good a reason as I can think of.

QUESTION: Mr. Brown, could you tell me where spent fuel for the nuclear power plants goes, and what is your corporate responsibility for that fuel?

MR. BROWN: Right now it's being stored at the site. There are no reprocessing or waste disposal facilities because of national energy policies. The latest date I've seen published, and this keeps getting pushed further and further into the future, is that by the late 1980s a decision will be made on waste disposal. Now, this is a federal policy position. I think they could make up their minds today if they really wanted to make a political decision. But I don't believe that there's any senator who is willing to stand up and say "OK, put it in my state."

QUESTION: Would the economic feasibility of nuclear power be altered if the companies were responsible for the reprocessing and rendering safe of nuclear wastes from their own power plants? Right now, there's an open loop. The nuclear waste is being stored; it's not being dealt with physically. If the cost of reprocessing or safe permanent storage were born by power plants, what would then be the relative cost of electricity from a nuclear power plant vs. oil or coal or our other alternatives?

MR. BROWN: It would be cheaper still. There's an awful lot of potential energy still contained in the fuel rods that are not being reprocessed today. If reprocessing were to take place, there would be a net savings. There's an awful lot of money sitting in that spent fuel. In terms of waste, I think that's a technical problem that's already been solved. Certainly there are long-term wastes, but they can be rendered safe through ceramicizing and storage in salt domes.

I'd like to point out why we can't make the decision in this country. France has recently announced they are going nuclear. They are installing reprocessing and waste disposal facilities. West Germany just had a hearing, which lasted several weeks, on a complete reprocessing and waste disposal back-end system for nuclear, because they've made up their mind that they're not going to be importing oil. If they can do it, I submit that this country can. I think it's a political problem more than a technical one.

QUESTION: It's my personal belief that the established utility industry will not be able to convert to alternative energy sources because they have a commitment to centralized power. What would you think of the concept of distributing energy management to the end user? Say you sold an appliance that would control load at the user, switching between several sources of power like solar, electricity, solar water heat, a nearby thermal or geothermal source, or something like this. The electronics would match the source of power with the least. I find it hard to believe the mass centralized power source is the least expensive.

MR. BROWN: OK, let me try to answer that. First of all, I think we've reached the peak size of generating units. I think the future — 10 or 20 years from now — is going to see smaller and smaller units, particularly as we can get into other technologies, whether they be fuel cells or photovoltaic or solar or what have you. But as long as the customer has to be supplied by wire, I don't really see any purpose to the end user choosing whether he's supplied by solar-generated electricity, or solar-thermal, or photovoltaic. Electricity today comes from gas, coal, oil, nuclear, etc. and you don't notice the difference. I think we'll go to more decentralized plants, smaller plants, and use alternatives where possible. But I don't really see that the end user is going to determine how it's generated, unless he generates it himself.

QUESTION: All the solar energy discussions that I've heard, including your own, talk about the use of solar panels for residences. Are there any realistic ways to use solar energy in industry?

MR. MITCHELL: One of the technologies we are interested in, one the Department of Energy has instructed us to develop, concerns industrial processes and agricul-

tural processes where solar energy can make significant heat inputs and displace the need for oil. We are working on that. But we don't have an actual measurement at our fingertips as to what that potential is. We are developing it, and we are working with industry in that context. It is real, and any Btu that we as a community can save is a unit of petroleum that we do not have to import. That's important, particularly when you consider that oil now is at just about $20 a barrel. By 1985 it will be at least $45 a barrel. And so with each passing day, as this incremental cost continues to increase, there is a larger incentive, both short-term and longer-term, to maximize a fixed cost that would supply, from there on in, free energy. That's exactly what we're pushing. It is there and it is real.

QUESTION: Where is the capital to come from ... industry?

MR. MITCHELL: Government has a real problem, because they have got to improve cash flow. They've got to provide the incentives which will persuade the consumer (whether it's the home owner, such as ourselves, or the commercial venture or the business venture, anyone that uses energy now) to invest in solar. As it is now, there are very few people who can put down $2,500 for a solar system. That's why government has instituted the income-tax credit. That's why the Department of Housing and Urban Development has instituted the grant process, and it's why local and state governments are putting in abatement procedures that will provide relief from property tax for fixed periods of time, maybe five years, maybe seven years. It is why states like California and Vermont have put in sizable income tax credits. California, for instance, has an objective of 50,000 household units this year. That's pretty big. But once you can get this going, once you can get the old wheel rolling, it will really take off.

Our job is to accelerate the commercialization of solar, not taking anyone's place but working with all the institutions that exist. we want to see a new technology successfully introduced into the marketplace in six to ten years instead of the twenty-five to thirty-five years it would normally take. Nothing like this has ever been tried before. This is deliberately putting someone between the consumer and government. It is government putting money into something that would stimulate demand realistically. And government is doing it for the consumer. So, to answer your question, there are distinct opportunities, distinct applications. Some of them still have to be identified, but we want to work very closely with industry, with commerce, and with labor in order to get these things identified and get the applications in place.

DR. EDMUND CRANCH:

The only real option I see to meet the major load is coal. When I hear solar, that's peak-load usage. So my question: isn't the call for action really a call to change the national policy on coal? And this is not a regional issue.

Then, secondly, that's only meeting one part of the overall energy need. How does this renewable resources scenario speak to the transportation sector, which accounts for 25 percent of our energy consumption?

MS. MURPHY: First, I don't think in the near future, even after the year 2000, we're going to see a substantial contribution to the base-load capacity through alternative energy sources, through renewable resources. What I'm trying to focus on is that there is a translation from action into research, and that's not good enough. There are a lot of technologies on the shelf right now. California can talk about 50,000 homes while we have 100 — that's ridiculous. We ought to be looking far more aggressively at the installation of the technologies that are on the shelf right now to help us through this period of time. We should be doing it not as research and demonstration but picking the stuff up off the shelf and getting it installed. We may look to R&D for some major technological breakthroughs on base-load capacity, but I'm really focusing renewable resources on the intermediate and the peak-load capacity, so that we aren't assuming we will continue to rely on coal, oil, and nuclear, even for most of the intermediate capacity.

Regarding the call for action around coal, yes. We've debated the coal/nuclear issue now for years, particularly in New England. And while we may differ on pro-coal or pro-nuclear, we are hurting ourselves more than anyone else by not going one way or the other. Instead we continue the debate ad nauseum, a matter I really think is going to stalemate. There does need to be a regional or national decision on that. And the more that we can force that decision to happen, then I think we will finally get on with the job.

On transportation, to the extent that we can use renewable resources for providing some parts of the energy needs in any sectors, that will provide more energy capacity for transportation. We'll really be hard-pressed to use solar technologies for transportation, so let's be practical about where we can apply them. If they're not applicable in transportation, at least they clearly are usable right now in some of our home heating, commercial, retail, and industrial uses of energy, and so we ought to focus on those first. But we have to stop the translation into research and development and begin to talk in terms of the technologies that are already on the shelf.

Kay Wear Draper — WPI's own talkin' woman

"SPEECHES ARE LIKE BABIES — easy to conceive, hard to deliver," says Kay Wear Draper, mother of six and an English lecturer at WPI.

This outgoing, vibrant woman, who was Massachusetts Mother of the Year in 1978, believes that humor belongs in the classroom as well as in the living room. "It holds the attention of the students," she explains. "It tells them that you're with them. That you love them. That you truly want to help them."

Currently Kay teaches public speaking to undergraduates and to students in evening continuing education classes at WPI. She also teaches English as a second language. She smiles at the thought of the latter. "Would you believe that I don't speak fluently any language other than English, and that I'm not even a certified teacher?" Then how was she able to find her present teaching post? Kay Draper laughs. "I didn't find *it*. *It* found me."

ON A BLISTERING July afternoon in 1973, Mrs. James B. Draper, Jr., wife of the Headmaster of the former Shepherd Knapp School in Boylston, was running what she terms "the world's largest barn sale" on the school grounds. "The last thing on my mind was a job," she confides. "I was the busy wife of a headmaster and the mother of six children. I hadn't worked since 1949. But I had written a book . . . ."

At the height of the barn sale, Kay received a phone call from Prof. Charles Heventhal of the WPI English Department. We'd like you to be our guest at lunch," he said. "We have a teaching post open, and we'd like to talk about it with you."

"I'm not a teacher," Kay informed him. "I know," Heventhal went on. "But I read your book, *How to produce plays without crying.* I liked it. I'm sure you have the type of teaching ability that we're looking for."

How to produce plays without crying is a popular book covering every aspect of the production of children's plays. It is full of detailed information and laced with Draper wit. On page 48 it even reminds the amateur producer not to forget to "detach the ruby from the slave girl's navel" at the end of the play!

Kay decided to attend the WPI luncheon meeting. In remembering, she again blossoms forth with that ready smile of hers. "We'd lived in Boylston for years," she says, "but I still had to look up the location of WPI on the Worcester street map. That should give you some idea of how hectic things had become out in Boylston."

The luncheon with Prof. Heventhal, Dean Bernard Brown, and former dean Kenneth Nourse was a success. "Of course, Mrs. Draper, you can teach!" She was, after all, a Phi Beta Kappa with a BA in drama and English from Oberlin College, and she'd worked on her master's in drama at Northwestern University's School of Speech. Before her marriage, she had worked as a writer and announcer at various radio stations in Florida, Kansas, and Illinois. She'd been a freelance actress, director, and producer in Illinois, Germany (with the American Red Cross Clubs), Massachusetts, and Maine. She had directed dozens of student shows. After her marriage to a paratrooper sergeant, she'd briefly taught English at Brunswick (Maine) High School. Of course Mrs. Draper could teach — communications.

Back in Boylston, Kay's husband, Jim, a renowned gourmet cook and dedicated father, backed his wife's new aspirations to the hilt. The children were practically grown up. Everything would be in control on the home front. Kay should definitely not pass up the teaching opportunity.

"THE FIRST THING I DID was to read everything I could get my hands on about communications," she says. "Then I taught my first class. I loved it."

Among Kay's early classes were many with foreign students. Those from Kuwait generally had trouble with pronouncing their "P's." Kay made use of the old dramatic trick of puffing feathers into the air and blowing out candle flames while strongly shaping the "P" sound. "One student, in particular, caught on very fast," Kay recalls. "He got so that he could pronounce all of his 'P's' perfectly. And he had a terrific sense of humor. After the final exams had been graded, he appeared at my door bearing a gift. 'Thank you for everything,' he said. He handed me a box. '**B**erfume from **B**ersia,' he laughed and fled."

Weekly student trips to such places as Sturbridge Village and the Higgins Armory forced Kay to use her battery of dramatic skills, since she was unable to converse in the native languages of the students from Kuwait and Venezuela.

"Along the way, I acted out, charade style, things such as *fence, horse, house* — anything we could see out of the bus window. It was especially difficult at the Armory," she continues. "It was relatively easy for me to portray a jousting scene, but how do you adequately act out *honor* and *chivalry*?" It is a credit to both teacher and students that they ultimately understood one another very well.

One of Kay's techniques was to ask each of her foreign students to bring in to class a new English word, one he did not clearly understand. Kay, through dramatic presentation and simple discussion, would then try to explain the meaning of the word.

"One day my good intentions backfired a bit," she reports. "The unknown word was *beach*. Immediately I fashioned a little playlet concerning waves, sand, tides, and sea shells. Most of the class caught on right away, but the student who'd offered the word in the first place looked more perplexed than ever. I asked him what was troubling him.

'Well, Mrs. Draper,' he began, 'I still don't understand the word *beach*.' I asked him how he'd heard it used.

'Somebody called me a son of a beach.'"

Kay Draper, the daughter of two missionaries, quickly launched into a 15-minute, off-the-cuff speech about Anglo-Saxonisms. By the end of the class, the meaning of most four (and five) letter English words had been made perfectly clear.

"Not my usual vocabulary," Kay admits. "But as students in this country, they had a right to know words that are commonly used on college campuses here, good /or bad! And, believe it or not, the class seemed to appreciate my sweating out the explanations."

At the beginning of her work with newly arrived Venezuelans, Kay told her students that only English words should be spoken in her classroom. "If you don't speak it, you won't learn it," she warned them. She sped up their learning by playing "Simon Says" and singing songs in English. If she caught anyone speaking in his native tongue, she stood him in a corner.

"The foreign students found this 'punishment' utterly hilarious," she confesses. "And they didn't hesitate for one moment to turn the tables on me. On the final day of one course, I said farewell to my Spanish-speaking students by saying 'Vayan con Dios.' They laughed and headed me toward a corner."

Because there have been so many foreign students eager to learn English, Kay has been aided by two master tutors, Mrs. Elisabeth Rubin and Mrs. Mary Jane O'Neil of the Writing Resources Center at WPI. "They are absolutely wonderful," she says with enthusiasm. "Not only do they help the students with their grammar and enunciation, they also get so involved with them that they often invite the students to their homes and take them along on family trips." (It is not without reason that the students

call Kay, Elisabeth, and Mary Jane their "American mothers.")

KAY ALSO TEACHES the art of speech-making, and has prepared a booklet to help students plan and present oral reports (usually required in connection with project work). The booklet discusses how to prepare for an oral presentation, ways of delivering a talk, pointers on speaking, and suggestions for using visual aids. The information, although it is in outline form, contains valuable hints and, as always, an injection of humor. At one point, Kay reminds the shaky prospective speaker that "the time given you (to speak) will probably be brief. Thank heavens!"

In her book-length blueprint on speech-making, *Speak Easy,* Kay covers virtually every facet of the subject, including mini-exercises to relieve tension and stage fright. Commenting on the proper presentation of an after dinner speech, Kay notes, "Like peppermints, you should be welcome after dinner." She believes that one's energy should be aimed at getting the message across most effectively, in the shortest possible time, and with the least amount of effort. Of long-winded, off-the-mark speeches, she says: "Speeches are like steer horns — a point here, a point there, and a lot of bull in between."

Once students are caught up in Kay's enthusiasm, they learn quickly how to prepare and present acceptable, even enjoyable, speeches. "The tape machine plays a big part in the learning process," Kay explains. "The very first

day I insist that my students stand up and be videotaped giving a speech. Seven weeks later, after a series of subsequent tapings, they are usually astonished to see how far they have progressed. Kay grins. "At least they won't fall apart years from now when they have to give a fund-raising speech for the hospital. And, hopefully, what they've learned may also help them further their careers." Kay strongly believes that the average engineering student, American or international, should be able to communicate his or her ideas effectively by graduation day.

NOW THAT SHE'S BEEN AT IT for six years, what does her husband think of her teaching? "Jim has been supportive all along," Kay replies. "Sometimes he thinks I'm away from home a lot, especially when I have evening classes or conferences and must stay overnight in Worcester. The fact that he is an eternal optimist and can handle anything that comes up at home (not only does he cook, he also hooks rugs!) has been a plus. Jim enjoys his work, too. He is a teacher-coach at the Lawrence Academy in Groton, Massachusetts, where he was recently named Dean of the Faculty."

And the children? "Since they range in age from 18 to 30, they aren't children any longer," she says. "They were used to my being involved in church and community work while they were growing up. My post at WPI was just another involvement to them. They approve of my career. As a matter of fact, Susan Kanya Draper, my daughter-in-law and the mother of two of our grandchildren, used to be Dean Grogan's secretary. So you can see that WPI is very much a family affair."

Getting back to families and mothering, Kay chuckles about the events leading up to her being named Massachusetts Mother of the Year in 1978. "When West Concord Union Church nominated me for the state honor last year, I had never heard of the American Mothers' Committee, which sponsors the annual national search. Actually, my first reaction was, What about my dog, Penny? She's taken care of her pups sometimes better than I've taken care of my own kids. I don't even cook! Nevertheless, I did accept the candidacy, and I was chosen."

Former Governor Michael Dukakis presented the award to Kay at Regis College in March of last year. In May she went to Des Moines, Iowa, for the national convention. Out of the 51 state mothers in the competition, Kay won one of the top five awards, her category — communications. Since then, Kay Draper has been elected president of the Massachusetts Mothers Association.

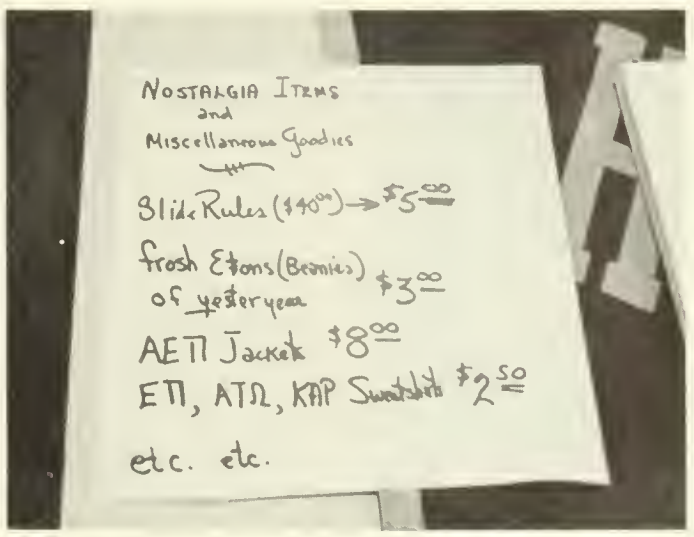
In order to qualify for Massachusetts Mother of the Year, Kay had to be, first, a successful mother. Okay. Kay talks lovingly of her six children and three grandchildren, describing her kids as strong and ambitious. Their talents range from restaurant consultant to nurse, and they live across the country, from New Hampshire to California. "I haven't always *liked* them," Kay comments, "but I've always *loved* them. I would often look at rainbows with them instead of doing the dishes. Before going to sleep at night, I'd encourage them to think about the happiest moment of their day. My 'goodnight' words to them were always, 'See you in the morning.'" Those are the words she'd like to have inscribed on her tombstone.

A Mother of the Year candidate must also be an active member of a religious body, exemplify the Golden Rule in her life, be involved in civic affairs, and do general volunteer work. She must be an all-around "doer," according to Kay, and be able to give speeches and interviews. "And when she is talking about the moral structure of the family to the public, she has to be specific, because family solidarity is what the American Mothers Committee emphasizes."

KAY DRAPER, who was born in China the daughter of Christian missionaries, carries with her a quality of radiant living and pure unadulterated joy and energy that is hard to miss. "If I have energy, it is God's strength being channeled through me. I welcome His light and love. I try to get the selfish 'me' out of the way and leave myself open to His will."

An optimist like her husband, Kay prefers to concentrate on the 'glowing' aspects of life and side-step the bad. "I try not to pack my subconscious with garbage like pornography. I firmly believe that a hopeful attitude can change your life, and that there is goodness in everyone."

Reuniuniunion 1979



When you are out 50 years ...

"What is so rare as a day in June?"

Poet James Russell Lowell has his answer. "Three days — when they're your 50th class reunion."

The WPI Class of 1929 turned that up last June 7, 8, and 9. The event was a lifetime coming, and it flitted by ever so softly and was gone before anyone could become accustomed to it.

There was that anticipation of Thursday afternoon at the Sheraton-Lincoln Inn and the crowded hospitality room, too small to contain the shouts of joy that spilled into corridors when old friends met and tried to identify. For some it was the first time back since the class had fanned out from Boynton Hill to take on the world.

Fate had answered them with the doom of financial ruin on Wall Street and the Depression of the 30s. Ah, it was but the first hurdle in a lifelong steeplechase. And then, the war that engulfed everyone in '42 and scarred the world.

But no time for that, or Korea, Watergate, or Viet Nam. This was THE DAY. Start the "whoopee," so long contained, often repressed.

As the bus filled rapidly, everyone tried to talk at once to span the intervening years. There was so much to say. So little time to say it before the rip tide of reunion swept all into President and Mrs. Cranch's reception at Jeppson House. What a welcome. What a cocktail party. Enjoy. Enjoy.

Then on to Higgins House for dinner. Roast prime rib of beef and all the fixin's in the splendor of the Great Hall. For whom? '29, '29, '29! The "new" president and his wife were charmers, and '29 was their first 50-year class to return to Tech. They took special delight in the joy of each 50-year diplomate (some of whom were receiving a WPI diploma for the first time).

The "glow" lasted all the way back by bus to the Sheraton-Lincoln, where the tired ones split and the younger at heart began talk-fests that ill prepared them for the morrow.

Registration began Friday morning in the Wedge, then campus viewing of all the changes in 50 years, especially that new old building, Boynton Hall. No more creaky stairs ... an elevator, yet. The exterior the same as its picture postcard silhouette against the powder puff skies above. Truly a new modern administration building in the old native gray granite shell that remains the living symbol of WPI. And this was but the first surprise on the tour led by Steve Hebert, the Answer Man.

Walking over almost-forgotten paths whetted appetites for the buffet luncheon in Morgan Hall, an interlude before inspection of buildings that have made the West Campus come alive since the school days of 1929. And then there was a special visit to the Worcester Art Museum for the more hardy.

Friday night was the might for corsages for the ladies and special styrofoam safari hats for all at the Class Banquet in the Chartley room of the Sheraton-Lincoln. The entrees for 65 members and guests were medallion of sirloin or schrod, another exquisite meal among many. Prof. William R. Grogan, '46, dean of undergraduate studies, talked about "Tech Today" — an insight into the present curriculum and how the WPI Plan came about. After a short business wrapup, the program marked special, less serious interests of the class and named superlatives for probably the last time.

Among them: Most recently married: McGowan, who received a record, "The Best Is Yet to Come"; Father with youngest child: Deranian, a loving cup, "Father of the Year"; Class member with least hair: Mooshian, a box of Miracle Grow; Married longest: Gilbert, a record, "We Could Start All Over Again"; Grandfather with most grandchildren: Barnard, a loving cup, "Grandfather of the Year"; Greatest distance from home: Burr, a binkey, to worry about gas en route to Mexico; Shortest in the class: Baldwin, a Pee Wee squeeze toy; Thinnest in the class: Chin, shoe strings; Heaviest: Heald, thin mints; Unmarried: Chin, a life-size poster of Raquel Welch; Solo driver returning to Arizona: Dobie, a radio aerial pennant, "Resting."

All received tankards with class emblem as favors. For the more practical, they can be used as desk-top pencil holders.

On Saturday, 1929 joined the general Alumni Reunion, with a long table the focal point under the trees on the gorgeous Higgins House lawn. The college food service outdid itself with a roast boneless chicken luncheon, picnic style.

On the program, the 50-year class distinguished itself with a gift to the college of $37,000, which was swelled to approximately $50,000 by matching gifts, according to Holbrook L. Horton, chairman of the 1929 reunion class gift committee.

The Class of 1917 Attendance Cup was received for 1929 by Reunion Chairman Francis Wiesman for an attendance of 48 percent. His committee was Deranian, Donahue, Labonte, and O'Connell.

In addition to the above, attendees were: Baldwin, Barnard, Berry, Broker, Burr, Carlson, Chin, Cook, Crosby, Dobie, French, Gilbert, Heald, Knight, Lane, McCarthy, McGowan, Edson Merrill, Mrs. Norman Merrill, Mooshian, Newton, Petrie, Halbert Pierce, Robinson, Russell, Stone, Towne, Wiley, Matson, Dephoure, and Nims, plus their wives and guests.

Mr. and Mrs. Larry Barnard took a special alumni package of souvenirs and memorabilia to Frank R. Joslin in University Hospital, Boston, where he was under treatment at the time of the Reunion.

Good Luck '29ers,
Wherever You Are.
Stephen D. Donahue (s.d.d.)

Top: Winners of the 1979 Herbert F. Taylor Awards for alumni service to WPI are, from left, Arthur E. Smith, '33, and Irving James Donahue, Jr., '44, along with Mrs. Taylor and Carl Backstrom, '30, chairman of the Citations Committee.

Above: Recipients of the Robert H. Goddard Award for outstanding professional achievement are, from left, Charles, F. Jones, '48, and Alfred Strogoff, '49, with WPI Board Chairman Paul S. Morgan.

At Left: Paul Morgan and Association president Bill Julian, '49, present the WPI Award for service to the college to President-Emeritus George W. Hazzard.

Below: Bill Julian with Daniel J. Maguire, '66, winner of the John Boynton Award for service by a young alumnus.

Class of 1934's 45th Reunion

Our 45th Reunion was just about the best we have ever had. Ted Hammett and his reunion committee did a great job, and we are particularly indebted to the people in the Alumni Office for putting together a great package for the weekend. Having all our activities right on the campus worked out great. It was particularly nice to be able to all stay in Ellsworth Residence, and to have our own hospitality suite. Warren and Helen Davenport did a bangup job hosting this suite, and if I had a count on the number of times Warren had to rush out to the local supply emporium to replenish stock, it would attest to the popularity of this spot. It was great to have a lot more time for reminiscing and catching up on news.

Another memorable item on the program was the session on WPI Today, given by a panel headed by Dean Bill Grogan, with faculty and student members. This covered the workings and success of the WPI Plan.

A nice first for us was having the Saturday noon Alumni luncheon out on the lawn under the trees near Higgins House. Both the luncheon and the program were nicely done, and were a distinct credit to those who planned and took part in it.

The high spot of the weekend for us was our class dinner in one of the dining rooms in Morgan Hall. This was MC'd by Charlie McElroy, who had a bagful of surprises up his sleeve, including a raffle of a whole box full of goodies. We had as our guest Tom Denney, vice president of WPI's University Relations. He is a very engaging and articulate speaker, and gave us a good run-down on things going on at Tech.

Those attending were: Bertil Anderson, Beebe, Bissell, Booth, Burpee, Campbell, Cowal, Cutting, Davenport, Flanagan, Frary, Don Greenwood, Grierson, Carl Hammarstrom, Hammett, Keenan, Leavitt, Markert, McElroy, Phelps, Rhodes, Sellew, Sjostedt, Snow, Paul Sullivan, Tytula, Vibber, and Whittum.

Howard A. Whittum

The Class of 1939's 40th Reunion

The Class of 1939 closed its 40th reunion festivities during the very early hours of Sunday morning, June 10th, 1979, when Al Rasklavsky, class president and general chairman of the reunion committee, locked the door to our "watering hole," room 102 of the Sheraton-Lincoln Inn. That brought down the curtain on the greatest reunion, of the greatest class, of the greatest school.

At least that is the biased opinion of the 86 '39ers and playmates who, on Saturday evening, posed for a group picture and later sat down for the Reunion Dinner.

Earlier that day, they occupied more than three tables at the traditional noon-day luncheon of alumni on the Higgins House lawn. During that event, C. John Lindegren, '39's reunion gift committee chairman, modestly (he didn't mention the dollar amount) presented the class gift. It turned out to be $40,862 at last count, and represented gifts from 75 percent of the class.

On Friday evening, '39ers were the guests of the college for the 40th Reunion Welcome Dinner at Higgins House. This followed a reception for the class and their wives hosted by President and Mrs. Edmund T. Cranch at their residence on Drury Lane. Among those greeting the '39ers at the door was Bob Yule, '80, son of our classmate George W. Yule.

For those who have yet to meet Tech's new prexy and his charming wife, there is a distinct pleasure for you to anticipate. The '39ers were delighted with them.

Attendance of '39ers was up to expectations, with arrivals from as far west as California and as far east as Belgium. However, on a percentage basis we were outdone by a bunch of middle-aged folk from the Class of '29! The Class prize for the longest distance travelled to the reunion went to Ernie Ljunggren, who came from San Diego. Bob and Martha Martin, who flew in from Brussels, refused to be considered for the long-distance prize, insisting that they had returned because they were recalled by Pratt & Whitney! That was difficult for the Class to believe since the two looked in great shape.

Bob Bergstrom won the prize (courtesy of Fuller Brush Co.) for being the baldest, while Lou Stratton and Ed Kiem were tied as the most grandfatherly, with 12 grandchildren each.

Also handed out to each reunioner was a WPI glass and Reunion yearbook. The book was put together by Kelley Keyser, and could only have been improved upon by more inputs from you modest '39ers. Incidentally, more than one of the wives present was heard to ask of the whereabouts of the last person in the book, J. Wellington Zribell.

Speaking of travel, Ernie Sykes and the Mrs. arrived from California with a house trailer, and Ed Kiem departed for Logan Airport with an Avis car which, due to the gas crunch, caused him to "try harder" (and perhaps cuss harder) before he found enough fuel to get him to Logan for his return flight to Florida.

Jack Boyd and Charlie Amidon served on the Reunion Committee along with Ras, Kelley, and John. Wally Abel and Don Houser, together with Kelley, John, and Jack, made up the Gift Committee.

Carl and Janet Lewin drove in from Cleveland a week prior, since Carl had to attend the Tech Board of Trustees meeting during commencement week. As a consequence, the Lewins had ample opportunity to try the Sheraton swimming pool. It is best that the Class of '39 "skinny dippers" and those who fell in the pool remain anonymous.

Had Bob and Donna Mirick made it from St. Paul — and if Dick and Mae Wilson, who came in from California, had not had to depart just before the Class Dinner — attendance at that event would have numbered 90. The Miricks turned back in Chicago when Bob's back acted up, and the Wilsons left before dinner in order to catch a Saturday night flight to Denmark by way of Italy. Dick had to attend a Rotary International meeting in Rome, and he and Mae have a daughter in Denmark who is expecting a visit from them *and* the stork!

Class reunions are not without some sadness, however, and the Class was disheartened to hear that, since the last printing of the alumni directory in 1977, we had lost Earl Conant, Ed Moggio, and George Monchamp. Please remember them and other departed classmates in the fashion of your faith.

For those of '39 who did not make it to the 40th, keep in mind that there's the 45th to plan for, and four other years in between. And be informed that none of us were enthralled by what any classmates may have accomplished, nor were any of us appalled by what any of us may have failed to accomplish. Simply, it was just a good time!

However, it was the unanimous opinion of the class that, when it comes to better halves, we all must have had child brides, since all the ladies present were so young and beautiful. And while age may be catching up with some of us, a number appeared to have remained in great shape. Two examples will be identified, not by name but by quotes from the 1939 Peddler. One still looks as though he could, with ease, sink that "one handed hook shot." The other is in such trim shape that, because of the behemoths playing in the line today, he might have to settle for being a "scrappy right guard" on a 175-pound football team.

Finally, for one class member, it was a pleasure that his alphanumeric vanity auto plates were, finally, 500 miles from home, recognized to have meaning. They read WPI-39. Of course, the bumper sticker directly beneath raised some doubts, since it read "Virginia is for Lovers."

Art Mallon

The Class of 1944's 35th Reunion

If you missed the 35th, you missed a good time. We got off to a great start as guests of Jim and Barbara Donohue in their beautiful home on Friday night. There was lots of good food, refreshment to wash it down, and good fellowship. In spite of the fact that no entertainment was necessary, with Jim on the organ and Barbara with her Sesame Street marionettes, and with various rhythm instruments "played" by other members of the class, it was quite an evening. And after everyone went home, Molly (Mrs. Steve) Porter cleaned up so Barbara could face the next morning.

We convened again on Saturday noon on the lawn of the Higgins House. There were other classes assembled there too, but none with the enthusiasm and spirit of '44. Our President Jim received the Herbert F. Taylor Award for Alumni Service to the school. His pedigree was most impressive. After all this, we adjourned to our respective nests for a nap.

Saturday evening at the Worcester Country Club was a great time, too. The Club made a critical mistake in their planning, and the bar was an open one for the first part of the evening. When Jim, our sponsor, arrived, he immediately realized that it would go on his tab, and he quickly corrected the error. We got the troops organized for a class picture, which rivalled getting a man on the moon. And repeated the feat by getting everyone back to the dining table. We had a delicious roast beef dinner with all the fixings.

But at this point the party began to fall apart. Because we are Jim's classmates, we let him know that all that baloney about what a great alummus he's been didn't impress us a bit; but after some time we reluctantly acknowledged that he did reflect a little glory on the Class of '44. Then we went through a very dignified ritual of inducting WPI President Ed Cranch and his wife Virginia into the Class of '44. Much of the discussion centered on why he was not really eligible — like he didn't even know Doc Masius, or Drowsy Dows, or great ones like Cookie Price or Don Downing — but finally they were accepted with enthusiasm as honorary members of our class. We bestowed another honorary membership in our class on Emilie Lagerholm, having been Mrs. Lagerholm for only 42 days. If you've been wondering, Emilie is just as beautiful, delightful, and charming as you can imagine. We all thanked Lag for his significant contribution to the class and the party.

Then Ed Cranch pulled the dignity of the party back together (though Joe Marcus didn't give him much peace!). Ed gave us a quick, thoughtful, and interesting review of what he sees at WPI, and where he'd like to lead it. It's unfortunate that his talk can't be reviewed here, but suffice it to say the Class of '44 heartily approved.

Then to recognition of Blitz Krieger, who traveled the farthest, from California, and he had the oldest grandchild too, at 19. John and Margie Bjork had the youngest youngster, age 10. Art Pingalore had the most hair, Frank Williams the least, and Don Gilrein had the most grandchildren, 7.

After this, there were a few smart remarks by Jim and others. After a good deal of this sort of foolishness, the party broke up, but not before Jim led us in the class song (not the alma mater, but "The Smoke Went Up the Chimney"). And everyone promised to be back for our 40th.

Kimball R. Woodbury

The Class of 1954's 25th Reunion

Twenty-five years go by quickly. They must, because no one had really changed, and it seemed like only yesterday that we had been together. This was the festive tone of our Reunion Weekend, and for the 50 members of our class (along with 46 wives and 8 children) it was a milestone to remember. It was a super weekend.

It all started with the opening of our Hospitality Headquarters Suite in the Fuller Residence, which became the focal point for all our activities. We even resurrected the "Goat's Head" for the occasion. King and Dee Webster served as the hosts, assisted by Lee and Rose Catineau, Bob and Jackie Niro, Bob and Del Labonte, Ed and Dianne Shivell, and Paul and Julie Alasso. The Suite always had someone coming or going and made for an ideal place to congregate, particularly after the Banquet. At that point we had about 100 people. We still cannot understand it — we didn't run out of either beer or good conversation!

The Reunion Luncheon gave Don Ross, our Class Gift Committee Chairman, an opportunity to present our nearly $40,000 gift — which, with matching funds added in, approached $60,000. This was a record for a 25th anniversary class gift. These funds will be applied to a project still to be identified. Don and his committee will advise.

Mentioning participation, our Reunion featured the largest attendance ever by a 25th anniversary class. It appears that our interest and enthusiasm haven't changed.

The Reunion reception at the home of President and Mrs. Cranch afforded an opportunity to meet them and discuss WPI and to socialize. And it prepared us properly for the Banquet.

The Banquet was superb, thanks to the Alumni Office, the caterer, and, more particularly, to Paul Alasso, Bob Niro, and Lee Catineau, who planned it. Lee also served as the Master of Ceremonies and combined levity and sobriety in a brief program that highlighted members of the

elass, the personality of the elass, things that happened while at Teeh, and the events leading up to the Reunion.

All our Class Officers were present: Dave Gilbert, Joe Fratino, Roger Osell, and Tom Kee. Dave eommented on the turnout and recognized Don Ross and Ed Shivell for their efforts as Chairmen of the Reunion Gift and Reunion Committees. Both Don and Ed thanked their respeetive eommittees for their efforts in making both efforts highly successful.

The Reunion Gift Committee included Don, Howie Nelson, Roger Osell, Ed Power, and Ed Shivell. The Reunion Committee included Ed, Paul Alasso, Lee Catineau, Bob Labonte, Bob Niro, Howie Nelson, Roger Osell, and King Webster.

Our speeial guests for the weekend and banquet were Bob and Ruth Wagner, Ray and Joyee Hagglund, and Carl and Arlene Koontz. Charlie and Marianne MeNulty were unable to attend beeause Charlie had just been released from the hospital. Bob Wagner refleeted baek on some of the memebers of our elass, like Diek Gilbert, Diek Byrnes, Bill Seubert, Al Costantin, and Hank Strage. Carl Koontz reealled his memories of the civil engineering graduates by highlighting Doug MeLaren, Jaek Malloy, Joe Fratino, Diek Popp, and Hugh Tufts. Now we know why Professor Knight looked tired at times. Right, Joe?

The Yearbook was distributed at the Banquet, along with appropriate eomments by Bob Labonte, who assembled the information and oversaw its publication with the help of the Alumni Offiee. From the statisties, it was obvious that members of our elass have been sueeessful professionally, with 59 pereent now in senior management or higher positions. These sueeesses were also refleeted in our eommitments to marriage, family, and Tech. The 3.2 children per family was analyzed as symptomatie of highly aetive libidos — that's sexy engineers.

Friday night found early arrivals renewing fond memories of favorite eating spots in Woreester. A group eomposed of Dave and Fran Gilbert, King and Dee Webster, Dave and Carol Bisson, Bob and Jaekie Niro, Bob and Del Labonte, Joe and Rose Fratino, and Ed and Dianne Shivell found their way to Dino's for Italian euisine. Diek and Betty Byrnes and Fabian and Annette Pinkham sought out a steak house. Fabian is the retired (?) member of our elass, and a sonderful example of an active, vibrant person. He said he just eouldn't find time to work now, although he does eonsult. The Fijis renewed fraternity bonds at Ed Moroeeo, where Paul and Julie Alasso, Elmer and Pat Corujo, Dick and Gwen Popp, Walt and Harriet Stewart, Hugh and Joan Tufts, Otto and Joyee Wahlrab, and Howie and Bebe Whittle assembled. They later returned to the Hospitality Suite and reportedly some helped close it at around 3:00 a.m. Elmer Corujo had travelled all the way from South America, where he was on business, for this occasion and our Reunion.

Mentioning those that travelled some distances to attend the Reunion: Saul and Enola Kabbani arrived from Jidda, Saudi Arabia. Lee presented him with a can of oil at the Banquet. Saul in turn made some pertinent remarks about the oil problem and his eountry. Hank and Alberta Strage came in from London and were joined by their son, who is attending Colby College. Hank's exeeutive position with MeKinsey & Co. makes him a regular visitor the the U.S.

In summary, when you add the familiar names of Owen Allen, Diek Linquist, Clayton Brown, Harry Chapell, Frank Ganari, Adrian Horovitz, George Idles, George Kay, Joe King, Dave Lamarre, Paul London, Russ Lussier, Marvin MeCoy, Mal MeLeod, Ray Naudin, Werner Neupert, Larry Sanborn, Gordon Walters, and Walt Dziura (and their wives and guests) to the list, then interweave Teeh stories with exchanges about family and friends, diseussions of professional, world, and business situations, and finally stir in good fellowship, it all equates to an outstanding and memorable reunion. It was a super 25th, thanks to the Committee, the Alumni Office staff, and above all, those who eame. We'll see you at the 30th ... or before.

Can you help us out?

There are some 700 WPI alumni whose addresses we've somehow lost track of. If you know a current address for any of these people, would you please drop us a note and let us know. (And if by some chance you find yourself on this list even though you're still receiving material (like this *Journal)* from us, well that probably means our computer hiccupped (#*HIC*&). We'd appreciate hearing about that, too.

In either case, just use the postage-paid reply card which is bound into the magazine.

P.S. If you don't happen to know any of these addresses, please feel free to use the card to give us some information about yourself — your personal and family life, what's going on with your career, anything that you might want your classmates to read about in "Your Class and Others."

P.P.S. Thanks a lot for your help.

James H. Clancy, '90
Frederic H. Leland, '95
Robert H. Taylor, '95
Edward L. Cullen, '96
Charles V. Walter, '96
Edward G. Beckwith, '97
Juan Irigoyen, '00
Roy G. Lewis, '00
Harry W. F Dunklee, '01

Winfred M. Adams, '02
Chester A. Bacon, '03
Herbert W. Tufts, '03
Elipidio Del. Werneck, '03
Manuel G. Rosado, '05
Ralph S. Forsstedt, '06
Walter P. Ingham, '06
George G. Whitney, '07
Elliott A. Allen, '08
Victor E. Friden, '09

Stephen M. Poutier, '10
James F. Thompson, '10
Martin H. Jachens, '11
Arvid I. Peterson, '11
William I. Randall, '11
D. Blair Foster, '12
Royal B. Libby, '12
Robert W. Mungall, '12
Franklin Wyman, '12
Stanley M. Gunn, '13

Charles O. Snow, '13
Edward H. Vance, '13
Harry D. Stephens, '14
Warren L. Ellis, '15
John W. Gleason, '15
Gilbert M. Ireland, '16
Joaquim de R. Junqueira, '16
Raymond H. Page, '16
Herbert C. Kelly, '17
Rupert C. Pomeroy, '17

Walter I. Stearns, '17
Edward L. Anton, '18
Lewis F. Lionvale, '18
Frank J. Murphy, '18
James E. Arnold, '19

Hans E. Anderson, '21
George A. Bijur, '21
Milton W. Graff, '21
Joseph F. Scanlan, '21
Joseph T. Fanning, '22

Francis W. Harney, '22
Edmond G. Reed, '23
Sidney H. Avery, '24
Richard F. Whitcomb, '24
Kenneth G. Broman, '25
Tzu-Hzu Chou, '25
Charles E. Crang, '25
John J. Hynes, '25
Thomas F. Plummer, '25
George C. Chow, '27

Yat W. Chow, '27
Ronald E. Jones, '27
Maxwell L. Stoughton, '27
Gordon N. McColley, '28
Leo J. Melican, '28
Allerton R. Cushman, '29
Alvar O. Ericson, '30
Irving Joseph, '30
Paul R. Nelson, '30
Arthur F. Pierce, Jr., '30

Charles K. Aldrich, '31
Francis O. Carlstrom, '31
Jay M. Harpell Saigon (id), '31
Arthur B. Brainerd, Jr., '32
Edward F. Donohue, '32
George E. Oman, '32
Frederick R. Asserson, '33
Ellis R. Brown, '33
Stephen S. Haynes, '33
Wright H. Manvel, '33

John J. Molloy, Jr., '33
Charles H. Newsome, '33
William A. Michalek, '34
George W. Axelby, '35
Robert M. Cape, '35
Clayton G. Cleverly, Jr., '35
Raymond G. Desrochers, '35
Frank O. Holmes, Jr., '35
George A. Mitchell, '35
Alvaro A. Silva, '35

Louis D. Soloway, '35
Joseph A. Sukaskas, '35
Russell H. Wood, '35
William F. Atwood, Jr., '36
Thomas J. Healey, Jr., '36
William Miseveth, '36
Frank Ellsworth, '37
Roland O. Farrar, '37
James F. Swartwout, Jr., '37
Russell Jennings, '38

Samuel A. A. Aaron, '39
S. Richard Abbott, '39
Irving W. Forde, '39
Robert J. Hamilton, '39
Laurence M. Howarth, '39
John W. Hughes, '39
Fred J. Kraemer, Jr., '39
Raymond B. Piper, '39
Charles S. Stevens, '39
Lennart Brune, '40

Robert J. Cannon, '40
Rolfe G. Johnson, '40
Joseph J. Platukis, '40
Bernard Polonsky, '40
Willard J. Riddick, Jr., '40
Harry E. Stirling, '40
Alfred F. Andersen, '41
Burgess P. Brownson, '41
Rev Edward G Jacober, '41
John F. McElroy, '41

Paul G. Nystrom, '41
Jerome E. Schread, '41
Frederick S. Sherwin, '41
Chamroon Tishyanandana, '41
Morris C. Chu, '42
Alan Crowell, '42
Burton Franklin, '42
David L. Hartwell, '42
Kenneth T. Hunt, '42
William S. Allan, Jr., '43

Alexander J. Belmonte, '43
George Cagen, '43
Everett W. Dunlap, '43
Carl E. Hartbower, '43
James L. Loomis, Jr., '43
Edwin H. Matasik, '43
Clifford B. Moller, '43
Harold E. O'Malley, '43
Marshall B. Raybin, '43
Dr. George P. Scott, '43

Louis J. Baldini, '44
Richard T. Brown, '44
Capt. Alan C. Gault, '44
Peter E. Talley, '44
George E. Titterton, '44
Harrison Bragdon, '45
Donald M. Campbell, '45
Cmdr. Kenneth B. Hofstra, '45
Clifford E. Lanigan, '45
Leonard F. Moore, '45

Alvi T. Twing, Jr., '45
Philip S. Adams, '46
Irwin G. Benkert, '46
Gaetano Biuso, '46
John M. Considine, '46
Anthony L. Daoundakis, '46
Charles J. Gose, Jr., '46
Robert N. Gregoroff, '46
Christopher A. Herbert, '46
William J. Kelly, '46

Dr. Myer Krulfeld, '46
Alan Y. Levine, '46
John M. Longo, '46
Philip R. Loshin, '46
James J. Malley, Jr., '46
Dr. Karl M. Mayer, '46
Howard F. McCormick, Jr., '46
Allan W. McCoy, '46
Elton K. Morice, Jr., '46
John C. Osborn, '46

Alvin M. Ross, '46
Sidney S. Sperling, '46
Jose R. Biamon, '47
August L. Flotteron, Jr., '47
Roland H. Guay, '47
William Longmuir, '47
Vaikunth C. Thakar, '47
Benjamin B. Barker, Jr., '48
David I. Caplan, '48
Harold J. Devlin, '48

Julian H. Jacobs, '48
Birger D. Lund, Jr., '48
Paul J. Martin, '48
Joseph R. McBride, '48
William R. Olha, '48
Shou L. Pan, '48
Frederick R. Paul, '48
Franklin J. Powers, '48
Per Roed, '48
Leonard D. Rood, '48

Kenneth E. Whatmore, '48
Thomas H. Wyllie, Jr., '48
Kinsley A. Ball, Jr., '49
Elmer R. Griffith, Jr., '49
Frederick S. Jenkins, Jr., '49
John E. McCarthy, '49
Tsu-Yen Mei, '49
Capt. James B. Morin, '49
William H. B Parr, '49
Harry J. Rogers, '49

Vernon H. Russell, '49
Joseph T. Starr, '49
John R. Adams, '50
Philip L. Barbaccia, '50
Fred A. Carmody, '50
Gerald Fleit, '50
Morey L. Hodgman, '50
Robert L. Tagen, '50
Guido Biagini, '51
George M. Cooley, '51

Ellsworth R. Cramer, '51
Constantino Mustakis, '51
Mehmet R. Ozbas, '51
Ratanshaw K. Patel, '51
Richard E. Snyder, '51
Mustafa T. Sonmez, '51
Dick van den Berge, '51
David F. Wright, '51
Bernard G. Ziobrowski, '51
Robert C. Henegan, '52

Jack Y. T Kwan, '52
Edmund M. Luzgauskas, '52
Lysle P. Parlett, '52
Bernard J. Petrillo, '52
Yasar Yurdal, '52
Stanley C. Andrukonis, '53
Thomas J. Bagley, '53
Karl H. Bissell, Jr., '53
Harrison V. Carter, Jr., '53
Martin R. Cohen, '53

Ernest E. Demar, '53
Joseph A. Holmes, '53
Leroy W. Madison, '53
Carl W. Martilla, '53
Hugh R. McLaughlin, '53
David C. Morrison, '53
Richard W. Morton, '53
Paul C. Murray, '53
Harold G. Rackett, '53
Philip R. Randall, '53

George L. Rousseau, '53
Dr. Wu Mei Yao, '53
Albert L. Zuck, '53
James Hamilton, '54
Ernest R. Hooks, '54
Souren Jaffarian, Jr., '54
Framrose M. Karani, '54
Abdul H. Kazi, '54
James F. King, '54
Roy G. Lent, '54

Jack K. Mackowiak, '54
Robert V. Mahon, '54
William J. Mahota, Jr., '54
Robert R. McMillan, '54
Leonard V. Mello, '54
Robert S. Nahas, '54
James E. Clampett, '55
Louis A. Larini, '55
Markar A. D. Markarian, '55
Richard C. Oldham, '55

Alan F. Petit, '55
Joseph K. Ryan, Jr., '55
Leslie C. Street, '55
Antonio Aranguren, '56
Frederic A. Highman, '56
James C. Kubik, '56
John H. Lillibridge III, '56
Juozas Orentas, '56
Hebert P. Schoeck, Jr., '56
Christos G. Alex, '57

Lawrence E. Alston, '57
Maj Joseph J Arcari, '57
Santo M. Bramande, '57
James F. Fournier, '57
Frank R. Goodwin, '57
Thordur Grondal, '57
Joseph D. Grzyb, Jr., '57
Willis A. Gunning, '57
Stanley Hass, '57
Richard F. Heyelman, '57

Paul J. Janda, '57
Donald H. Morse, '57
Barrera A. Ramirez, '57
Michael Spiegel, '57
Israel Sverner, '57
Benjamin G. Uy, '57
Roger R. Billings, '58
William L. Byars III, '58
Richard H. Campbell, '58
Joseph L. Chenail, '58

Robert D. Crooker, '58
T. William Curran, '58
John F. Daly, '58
Robert J. Dunn, '58
Charles G. Fyfe, '58
Frank K. Lind, '58
Richard E. Lorenz, '58
Nicholas S. Petralias, '58
Dr. Sherman K. Poultney, '58
Roger W. Reynolds, '58

Frank A. Seidel, '58
J. Clifford Wiersma, '58
Thomas M. Wood, '58
John A. Beede, '59
Alan E. Benson, '59
Fred D. Blonder, '59
Ralph A. Huey, '59
Roberto Jaramillo, Jr., '59
James W. Mahoney, '59
Davis C. McLeod, '59

Robert W. Milik, Jr., '59
Robert B. Palmer, '59
Harvey J. Rosenfeld, '59
Arthur C. Seelye, '59
Ozden Aslan, '60
Arthur D. Brook, '60
Donald J. Busteed, '60
William M. Cannon, '60
George V. Cashen, Sr., '60
Dr. Jo-Chao Chueh, '60

Gungor Dagistanli, '60
Terrence M. Dupuis, '60
John N. Galian, '60
Richard S. Johnson, '60
Stuart W. Macomber, '60
Frank R. Materese, '60
Edward D. McGrath, '60
Capt. Allen R. Miliefsky, '60
Paul C. Miller, '60
Robert M. Neal, '60

John V. O'Keefe, '60
Kenneth Roberts, '60
Peter H. Schneider, '60
Capt. Howard D. Stephenson, '60
Maung T. Swe, '60
Ara Tutunjian, '60
David I. Westling, '60
Lt. J. Warren Alford, '61
Brother Augustine Bemis, '61
George R. Bolduc, '61

Kayhan Boro, '61
Douglas H. Cormier, '61
Eduardo Cruz, '61
Terry W. Donovan, '61
Evan G. Duane, '61
Suat Gonen, '61
C William Hayes, '61
Norman P. Johnson, '61
John W. Kappel, '61
Swang Lee-Aphon, '61

Steven H. Lerman, '61
Richard A. Levendusky, '61
Russell C. Lockwood, Jr., '61
George Matassov, '61
Maung T. Maung, '61
Dr. Timothy C. Meyers, Jr., '61
John C. Nicholson, '61
John C. Nicholson, '61
Gordon B. Phillips, '61
Lt. Cdr. Leonard E. Pickens, '61

John A. Rossi, '61
Donald E. Schaaf, '61
George M. Storti, '61
Theodore S. Strojny, '61
Dominic E. Tutino, '61
Donald W. Wilmot, '61
Maung N. Win, '61
Alfred A. Arterton, '62
Haines J. Boyle, '62
Yigit Bozkurt, '62

Robert D. Britton, '62
Mehmet I. Can, '62
Victor B. Castellani, '62
William P. Earley, '62
John S. Golder, '62
Joel L. Gordon, '62
Richard D. Hartley, '62
Captain Jackie P Matteus, '62
Robert G. McDonald, '62
Michael A. Moses, '62

Nelson E. Parmelee, '62
Richard S. Price, '62
William H. C. Reinert, '62
Albert M. Rockwell, Jr., '62
Arve Syverud, '62
Basat H. Tilkicioglu, '62
Raymond M. Akerson, Jr., '63
Paul Y. Chan, '63
Thomas W. Greisamer, '63
G. William Hartman, '63

Perry O. Kearney, Jr., '63
Cyrille H. Lafrance, '63
Harry P. McIntyre, Jr., '63
William P. Morrison, '63
Pundalik U. Prabhu, '63
Francis E. Spring, Jr., '63
Gordon O. Stearns, '63
Kendal B. Turner, '63
Gordon M. Ware, '63
Dr. Paul G. Amazeen, '64

Stanley J. Andrysiak, '64
Bernard Baron, '64
Krishnakumar V. Chaudhary, '64
Donald J. Coleman, '64
Victor A. Dushku, '64
Capt. Harry G. Fager, Jr., '64
Robert A. Frenette, '64
William S. Fryer, '64
Geraldine V. Geroux, '64
George E. Hammond, '64

William B. Lechmann, '64
Major Clifford M. Macdonald, Jr., '64
Peter C. Trombi, '64
D. Ralph Whiterell, '64
John Wofford, Jr., '64
John T. Apostolos, '65
Rajkumar K. Bajaj, '65
Lt. Desha M. Beamer, '65
Michael W. Boyd, '65
James B. Calvin, '65

Dr. Jerry C. Chen, '65
Arthur M. Dickey, '65
Mahesh S. Dixet, '65
Aloysius S. Dzura, '65
Lt. Robert B. Edwards, '65
Dr. Robert W. Hermes, '65
Robert W. Kendrick, '65
Antanas S. Liutkus, '65
John F. Madden, Jr., '65
Sunil M. Mehta, '65

Charles F. Merry, '65
Lt. Cmdr. George W. Mitschang, '65
James P. Molloy, '65
William L. Rosen, '65
Dennis J. Simanaitis, '65
Leo G. St. Denis, '65
Ali H. Ustay, '65
Dilip V. Vora, '65
Kenneth M. Bell, '66
Stephen Berman, '66

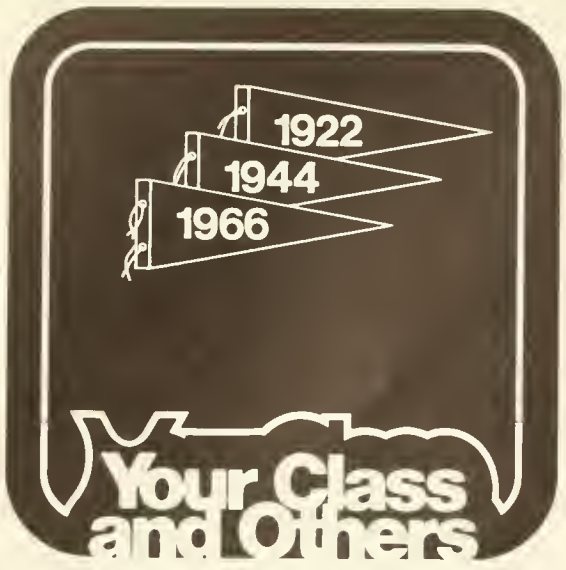
Robert G. Bertrand, '66
Satish H. Bhatt, '66
David M. Burwen, '66
Gary P. Cassery, '66
Omer M. Cavusoglu, '66
Shailesh V. Dave, '66
Sharad B. Doshi, '66
Dwight S. Evans, '66
Paul F. Flaherty, '66
George H. Flynn, '66

Robert G. Bertrand, '66
Satish H. Bhatt, '66
David M. Burwen, '66
Gary P. Cassery, '66
Omer M. Cavusoglu, '66
Shailesh V. Dave, '66
Sharad B. Doshi, '66
Dwight S. Evans, '66
Paul F. Flaherty, '66
George H. Flynn, '66

Paul F. Glodis, '66
Roberto Huyke-Luigi, '66
Stephen K. Kaiser, '66
Ahmet G. Kozanoglu, '66
Gerald W. Lucas, '66
Ahmet Mavitan, '66
Orlando R. Mendez, '66
Errold F. Moody, Jr., '66
John A. Nordstrom, '66
1st Lt. Geoffrey Potter, '66

James F. Randall, '66
Albert W. Robinson, '66
Edgar P. Rundlett, Jr., '66
Ramanik N. Savla, '66
Raymond A. Wheeler, '66
Subhashchandra N. Amin, '67
James R. Braithwaite, '67
Athanassios H. Canatsoulis, '67
Mahendra K. Dave, '67
Byron L. Dennison, '67

Dhaval R. Kikani, '67
Mitchell P. Koziol, '67
Leonard J. Lamberti, '67
Mohmedjarid M. Malek, '67
David R. Malley, '67
Ajit M. Mody, '67
Rajendra M. Pandya, '67
Kenneth R. Prefontaine, '67
Herbert S. Riddle, Jr., '67
2nd Lt. Richard A. Shaw, '67



1909

Lester Carter and his wife marked their 56th wedding anniversary on May 2nd. He says, "Health is fair with arthritis. Wife is also fair. Graduated 70 years in June."

1914

John Desmond of Rochester, N.Y., writes that he celebrated his 89th birthday on May 3rd. . . . **Chester Inman** has received a 60-year plaque from the American Society for Metals. For 34 years he has been a continuous member of the Worcester Chapter of ASM, and is chairman emeritus of the executive committee. He is a fellow of the Society. ASM has over 42,000 members.

1919

Secretary:
Edwin W Bemis
10 Dryden Rd
Brick Town, NJ
08723

Ray Heffernan, chairman of the board of the H.H. Brown Shoe Company, New York City, received an honorary doctor of humane letters in May from Mercy College, Dobbs Ferry, N.Y. Mr. Heffernan has been responsible for the growth of the firm from a small company to one of the leaders of the shoe industry. H.H. Brown's sales exceeded $100 million last year. Long associated with higher education, he has served on the boards of several distinguished institutions. He is also active in Westchester civic circles and belongs to the board of trustees of St. Vincent's Hospital in Harrison. He is a member of the President's Advisory Council at WPI.

1921

Secretary:
Carleton F Bolles
Green Pastures, RFD
Walpole, NH
03608

Rhea and **Edward Rose** celebrated their 57th wedding anniversary on February 21, 1979.

1923

Charles Fram, editor and general manager of the magazine, *Southern Printer,* was honored in November by the Ernest H. Abernethy Publishing Company, Inc., on the occasion of his 50th year with the firm. Charlie is a corporate vice president and also serves as editor and general manager of *Southern Jeweler.* The celebration was held at the Piedmont Driving Club in Atlanta, Ga.

1926

Secretary:
Arthur C. Parsons
51 Andover St.
Worcester, MA
01606

Ken Archibald continues as executive vice president of the Springfield (Vt.) Chamber of Commerce, a post he has held for ten years. Previously, he was with New York Telephone for 41 years. . . . **A.H. Wendin** recently helped build a replica of "The Spirit of St. Louis" (III), his contribution being largely the wooden wing frames. Now summering in San Diego, he expects one of the highlights of his vacation will be seeing the "Spirit" fly. He is also planning a trip East for a week at the Creative Problem Solving Institute in Buffalo, a stop in Fairfield, Conn., to see family and friends, and other stops in Worcester and Rockport, Maine. Last winter he vacationed on the beach at Puerto Penasco, Mexico.

1927

Secretary:
William M Rauha
4 Whiffletree Rd
West Yarmouth, MA
02673

Harold Eastman writes: "I wish I might have been on the Hill under the WPI Plan."

1928

Secretaries:
Gifford T Cook
Rt. 3 Box 294 Keyes Perry Acres
Harpers Ferry, WV
25425

Theodore J. Englund
70 Eastwood Rd.
Shrewsbury, MA
01545

Representative:
Gabriel O. Bedard
132 Marsden St.
Springfield, MA
01109

The **Winslow C. Wentworths** celebrated their 50th wedding anniversary on March 23rd in Turners Falls, Mass. Mrs. Wentworth graduated from Westfield Normal School and taught in the city of Westfield. Her husband, who is retired from Western Massachusetts Electric Co., is a former chairman of the Greenfield Co-operative Bank board of directors. Presently, he serves as president of the Franklin County Home Care Corp. and as a trustee of Farren Memorial Hospital. The Wentworths have two sons, three grandchildren, and five greatgrandchildren.

1930

Secretary:
Carl W Backstrom
113 Winifred Ave.
Worcester, MA
01602

Representative.
Carl W Backstrom

Charles Cole writes he is "enjoying retirement in Florida with summers on Cape Cod." . . . Our champion bicycle rider, **Ed** "Foxy Grandpa" **Delano** was struck down by a truck during a time trial last fall and received a broken leg. Ed informed his doctors that he intends to continue his racing career. The medics did a natural bionics job on his leg by removing a slab of bone from his hip and attaching it as reinforcement to his leg bone. Competitors will be "pleased" to hear that this arrangement may well furnish extra pedaling strength to the leg. Ed, healing well, intends to pedal 3100 miles to his 50th reunion in 1980. This ought to inspire the rest of the class to come to reunion to see this remarkable rider. . . . **Daniel O'Grady** has been appointed chairman of a drive to endow principal players' chairs for the Cape Cod Symphony Orchestra during the orchestra association's 1979 Sustaining Fund Campaign. Dan is the retired general commercial manager and executive assistant to the president of New England Telephone Co. He is a trustee emeritus of WPI, a member of the board of the American (and Massachusetts) Lung Association, president of the Woods Hole Golf Club, and a trustee of the Cape Cod Symphony.

1932

Representative
Howard P. Lekberg
RFD 115 Main St
East Douglas, MA
01516

Jan Dowgielewicz, formerly with the Massachusetts Department of Public Works, has retired. . . . **Russ Purrington,** who retired from the Northeast Utilities System office in Breslin, Conn., six years ago as supervisor of maintenance of steam and hydro plants, writes that he is currently doing lots of fishing. He has a 28-foot cabin cruiser which he keeps at Niantic, Conn.

1933

Secretary:
Sumner B. Sweetser
100 Pine Grove Ave.
Summit, NJ
07901

Representative:
Robert E. Ferguson
36 Lake Ave.
Leicester, MA
01524

Harold Hammer says, "Enjoying Florida living very much." Harold, a resident of Winter Haven, reports that his granddaughter, Kim, graduated from Baypath in May. His oldest grandson, Jody Weatherwax, is at Virginia Military Institute and has broken the school track record for 1500 meters three times (Best time: 3:48). . . . **John Henrickson** and his wife, Evelyn, are playing lots of golf at Sun City Center in Florida. They also go fishing and play bridge with "many friendly people from all walks of life in the U.S.A." John serves as chairman of the Consumer Affairs Committee of the Home Owners Association. . . . **Albert White, Jr.** has several hobbies, one of which is to walk fast about ten miles a day. He is retired from the federal Civil Service.

1934

Secretary:
Dwight J. Dwinell
Box 265
Brownington, VT
05860

Representative:
Dwight J. Dwinell

G. Standish Beebe, who retired from Pfizer Inc. after 32 years as plant engineer and construction manager, is the newly appointed executive coordinator of the New England Construction Users Council. He uses his home as his office.

1935

Secretary:
Raymond F. Starrett
Continental Country Club
Box 104
Wildwood, FL
32785

Representative:
Plummer Wiley
2906 Silver Hill Ave.
Baltimore, MD
21207

Karl Bohaker has retired from the Electrical Products Group of AMF, Inc., and has moved to Pitman, N.J. . . . **Edward Cove,** who has been retired for several years, says that there is plenty to do on Cape Cod the year 'round. "There is no shortage of activities."

Sam Hakam says he's "politically active in order to get some corrective legislation on the products liability nightmare." . . . **Roger Lawton** is retired from Electric Boat in Groton, Conn. Currently, he manages the Lawton "tree farm" in Athol, Mass., and enjoys golf, tennis, and skiing. He plans to continue his retirement in the Mystic, Conn. area, where he has lived for 24 years.

1936

Secretary:
Harold F. Henrickson
1406 Fox Hill Dr.
Sun City Center, FL
33570

Representative:
Walter G. Dahlstrom
9 Jewett Terr.
Worcester, MA
01605

Roslyn and **N. Robert Levine** took a trip to Israel in May. . . . **George Wood** retired last October from the Homelite Division of Textron, Inc. He enjoys photography and travel.

1937

Secretary:
Richard J. Lyman
10 Hillcrest Rd.
Medfield, MA
02052

Representative:
Richard J. Lyman

Now retired, **Carl Otto** is having a "life of sunshine, hunting and fishing." . . . Says **Raymond Schuh,** "Retirement can't be beat."

1938

Secretary:
Emory K. Rogers
141 Lanyon Dr.
Cheshire, CT
06410

Representative:
Albert L. Delude, Jr
261 Garden City Dr.
Cranston, RI
02910

Recently, **Arnet Powell** served as an ACS councilor at the American Chemical Society and Chemical Society of Japan joint meeting in Honolulu. Attending the international conference were chemical society representatives from Canada, Australia, and New Zealand. Twelve delegates came from China, nine of whom gave papers.

1939

Secretary:
Charles H. Amidon, Jr
636 Salisbury St.
Holden, MA
01520

Representative:
C. John Lindegren, Jr
21 Prospect St
Shrewsbury, MA
01545

Carl Keyser is retired, and is an "author, more or less." He lives in North Hampton, N.H., with his wife, Dorothy, whom he lists as his "employer."

Edward Roszko retired as plant superintendent of production in the Petchem area of du Punt on Jan. 31st. After receiving his master's in chemical engineering from WPI in 1941, he joined du Pont in the analytical group at Jackson Laboratory. In 1942 he moved to the semi-works operation. During World War II, he was a supervisor in the chlorine area. In 1949 he transferred to camphor. Ed moved to T.E.L. as a supervisor in the batch processes in 1950, and in 1951 he was assigned as coordinator of design and start-up of the T.E.L. continuous plant. He was made senior supervisor at "A" plant in 1953. Also, in 1965, he was assigned to the du Pont of Canada project to coordinate design and start-up of the lead alkyl plant. In 1966 he returned to Jackson Laboratory, where he was made a division head. He became chief supervisor of the T.E.L. area in 1968. In 1970 he was promoted to superintendent of the Chamber Works Power Division. Two years later he was named superintendent of the Petroleum Chemicals Manufacturing Division.

Ed has been active in scouting and civic affairs in Upper Penns Neck. He was chairman of the Upper Penns Neck Sewerage Authority, and a member of the Technical Advisory Committee for the Deepwater Regional Treatment Facility. He belongs to the Rotary Club and is on the board of the Salem Community College Foundation. During retirement, Ed plans to travel, read, golf, and garden.

Walter Abel has found a new way to improve his skiing technique. He straps to his chest a small tape player, which plays soothing music while he is skiing. He claims that this method will turn a novice into an intermediate in a weekend. Among his favorite tunes are "East Side, West Side" and "Red Roses For A Blue Lady." Usually other skiers, hearing Abel's music, follow him Pied Piper fashion down the slopes. "Skiing to music makes you lose track of the day," he says. "Back at work on Monday morning, you're ready to fight wildcats!"

1941

Secretary:
Russell W. Parks
7250 Brill Rd
Cincinnati, OH
45243

Representative:
Robert A. Muir
529 Pearl St.
Reading, MA
01867

Walter Kennedy was recently promoted to assistant to the general manager, plastic products group, bag division, at Union Camp Corp., Wayne, N.J. He had been assistant to the general manager in the honeycomb division. In his new post, he will continue to be headquartered at Union Camp's corporate offices in Wayne. . . . **Ed Pacek** is a director and public relations man at Rocky Point Park in Warwick, R.I.

1942

Representative:
Norman A. Wilson
17 Cranbrook Dr
Holden, MA
01520

Wilbur Day's family has "increased by two new daughters-in-law and one new granddaughter." He has a total of four grandchildren. . . . **James Houlihan** was recently appointed vice president of research and development for the Milton Bradley Game and Educational Divisions in Springfield, Mass. In 1952 he started with the company as chief chemist. As manager of game development and, later, as director of research and development and director of the Advanced Research and Development Department, he has been responsible for many new product introductions. During World War II, he was a weather forecaster in the Navy. Currently, he is a lieutenant in the U.S. Naval Reserve, and teaches weather forecasting in the U.S. Power Squadron.

David Nyquist writes that he is "still involved with ports and ships as assistant general manager of the Chicago Regional Port District." . . . **Frank Sama,** who is retired from Turbo Power & Marine Systems, Inc., says that he is enjoying part-time work with his son in the lumber and building supply business in Maine. He is proud of his two granddaughters, ages 13 and 11.

1943

Representative:
Behrends Messer, Jr
Mobil Research & Development
P. O. Box 1026
Princeton, NJ
08540

Donald Russell's daughter, Nancy, the oldest of four children, is married and is in public health consulting work in Menlo Park, Calif. Bob, the youngest, is an honor student at Wentworth Institute. . . . **Perry Fraser** now serves as senior development engineer at Mechanical Technology Incorporated. He is located in Scotia, N.Y.

1944

Secretary:
John G. Underhill
6706 Barkworth Dr
Dallas, TX
75248

Representative:
John A. Bjork
11 Tylee Ave
Worcester, MA
01605

▶*Married:* **Erling Lagerholm** to Emilie W. Hofmann recently in Cambridge, Massachusetts. Mrs. Lagerholm graduated from Vassar and is a yoga teacher in Weston. Her husband is a real estate counselor for Norwood Group International, Inc. of Boston.

Continuing with GE, **Floyd Smith** is a sales representative for the firm's lamp division in Greenville, S.C. . . . **George Williams** has been promoted to manager of fuels, electric operations, at New England Gas & Electric System, headquartered at Canal Electric in Sandwich, Mass. He joined NEGEA Service Corp., Cambridge, several years after "retiring" from Bailey Meter Co.–Babcock & Wilcox. In 1977 he was promoted to mechanical engineer.

1945

Representative:
Robert E. Scott
Allendale Mutual Insurance Co.
P. O. Box 7500
Johnstown, RI
02919

Robert Buck writes: "Planning on retiring from the government at the end of June." . . . Dr. **Carl Clark,** a physical scientist, has been named inventor contact for the Office of Passenger Research, a branch of the National Highway Traffic Safety Administration in Washington, D.C. He is concerned with the redesign of the automobile. . . . **William Densmore** is the newly appointed vice president of abrasive operations in the U.S. and Canada for Norton Co. He had been vice president and general manager of the grinding wheel division since 1971. In 1946, he started as an industrial engineer at Norton. He is a registered professional engineer, and a member of the Management Board of Advisors at WPI. . . . **Charles Shattuck** is a manager of manufacturing engineering at Nashua (N.H.) Corp.

1946

Secretaries:
M. Daniel Lacedonia
106 Ridge Rd
East Longmeadow, MA
01028

George H. Conley, Jr.
213 Stevens Dr
Pittsburgh, PA
15236

Representative:
George R. Morin, Jr
81 Park Ave.
Keene, NH
03431

Eugene Ritter holds the post of plant manager at Lehn & Fink in Toledo, Ohio.

1948

Secretary:
Paul E. Evans
69 Clairmont St.
Longmeadow, MA
01106

Representative:
John J. Concordia
36 Summer St
Shrewsbury, MA
01545

David Anthony has left Texas Instruments to "semi-retire." He has cut his daily commute from 150 to four miles, and is now doing some drafting and estimating for a local (Columbus, Texas) building contractor. . . . **Lawrence Hine** says he has "No news, really, but could make so many comments on our contemporary American society that it would fill a book." He has three daughters, one 24 and married; another 21 and a college senior; and the last, 16, a high school sophomore, who has just gotten her driver's license. "To say the least, their world is not the same as mine."

Norman Lourie holds the post of vice president of engineering at Wang Laboratories in Lowell, Mass., with major facilities throughout Middlesex County. According to Lourie, Wang is enjoying a prosperous growth in both small and medium business computers, as well as word processing systems. . . . Currently, **Lemuel Manchester** is a senior nuclear engineer at Combustion Engineering, Inc., in Windsor, Conn.

1949

Secretary:
Howard J. Green
1 Kenilworth Rd
Worcester, MA
01602

Representative:
James F. O'Regan
17 Hundreds Rd
Westboro, MA
01581

Clifton Nickerson is now president of Images Unlimited in West Boylston, Mass. He has a slide library of photo decor for decorating corporate offices, hospitals, etc., with photo murals. . . .**John Saunier** is a technical recruiter at Dunnhill in Parlin, N.J.

Businessperson of the Year

JULIUS PALLEY, '46, the "mastermind of Union Place" in Worcester, has been named recipient of *Worcester Magazine*'s Businessperson of the Year Award. In its tribute to Palley, the magazine recently stated: "If our cities are to continue to flourish and not fall back into decay, it will be because of men like Julius Palley, who have a sense of pride in their city and who seek to help others achieve what they themselves have achieved."

Only three short years ago, Union Place consisted of two fortress-like factory buildings, decaying from the inside out but conveniently located just off bustling Lincoln Square in downtown Worcester. Sensing the potential of the complex, Julius and his brother Arthur, owners of Commonwealth Stationers, bought the property and began the process of converting it to the city's first privately financed urban renewal project, with the money coming out of their own pockets.

The Palleys took part of the building space, renovated it for their own use, then looked for their first tenant. By a stroke of good fortune, Maxwell Silverman's Toolhouse, the now popular restaurant owned by Gus Giordano, became their "ground floor" tenant. "Giordano has been sort of a pacesetter for me," says Palley. "He tore everything apart and built a building within a building."

While Giordano was concerned with the building of the restaurant, Palley began renovating the rest of the property, one floor at a time, redecorating each area to the specifications of the tenant. One after another, a lot of nice substantial industries and businesses moved in. A good number of Palley's employees put their special skills to work at Union Place. "The whole thing was a truly cooperative effort," he says.

The Palley renovation is unique in that it reverses the trend of demolishing old buildings and replacing them with new complexes. In keeping Union Place intact, the Palleys have preserved a part of historic Worcester and at the same time provided an alternative for businesses that would not fare well in either large factories or retail shops. Julius is especially pleased that he has been able to save 25-51 Union Place because they are the last two industrial buildings left in Worcester which were originally built by Stephen Salisbury. "Salisbury was the original impresario of construction in Worcester," Julius declares.

Loyalty to Worcester is a long-standing family trait. The Palleys have lived in the area for generations. A son and nephew of Julius both work in the company that he and his brother started eleven years ago. Many of his employees have been with him for years.

"It is this type of loyalty that has helped me to accomplish whatever I may have accomplished in business and at Union Place," he reports. He claims that it is his brother Arthur, the company treasurer and money man, who should receive an award. "I was the front man for the renovation," he goes on, "but it was my brother who arranged the financing and kept our own business running."

Looking to the future of the property, Julius is considering several possibilities. "Currently the Toolhouse is expanding to the two upper floors, and an exterior elevator is being constructed," he reveals. "We are trying to blend in the expansion so that the architectural integrity of the buildings is maintained."

Some people have suggested that he have the property preserved as an historic landmark, which would make it possible for him to obtain government loans. "At the present time, we don't feel that we can accept such loans because of the various restrictions that would be set up," he says. "We need a little freedom to move ahead."

Palley is very close to his tenants, all of whom are from out of town or are new businesses. "We didn't offer anybody on Main Street a special deal to move in with us," he emphasizes. One of his major satisfactions is that the Union Place tenants are doing well. "I have to see them often and find out what's going on. I can't stay away."

Julius Palley, "Businessperson of the Year," is a man who shows concern, not only for the welfare of his tenants but also for the past and the future of the city he loves.

1950

Secretary:
Lester J. Reynolds, Jr
15 Cherry Lane
Basking Ridge, NJ
07920

Representative.
Henry S Coe, Jr.
3 Harwick Rd.
Wakefield, MA
01880

According to **Art Bouvier,** who has completed a career in the Air Force, "Old soldiers don't just fade away. They go into the real estate business." Art has returned to Massachusetts, where he has joined the Sanford L. Parks Gallery of Homes in Sandwich as a realtor-associate. He says, "I'll be pleased to assist any alumnus having designs on Cape Cod." . . . **John Hawley,** associated with the Walworth Aloyco plant in Linden, N.J., for twenty years, is now located with the firm in southwestern Pennsylvania at the Greensburg plant. (The firm's nuclear valve production was transferred to Pennsylvania.) He writes, "My wife and I are pleased with our location in a new home in Ligonier, Pa."

Currently, **Richard McMahan, Jr.,** holds the post of manager of operational planning at the Center for Energy Systems, Energy Systems and Technology Division of General Electric, in Washington, D.C. . . . **Paul Nyquist,** plant engineer at Hill Refrigeration, Trenton, N.J., is the present chairman of the Chamber's Plant Engineers Council. The Council is open to plant engineers of member firms and provides opportunities for them to be better informed on topics of mutual interest. Nyquist has been with Hill as plant engineer since 1974. The firm, which employs about 1200 persons, manufactures refrigeration equipment for supermarkets and other food dealers. "We think our equipment is the Cadillac of the industry," says Nyquist. Before joining Hill, he worked for John A. Roebling & Sons, Trenton; Robinson and Associates, Newark; and Joule Technical Services of Union. He belongs to the Department of Environmental Protection's Industry/Labor Advisory Committee on Transportation Air Pollution Control. In his spare time, he plays tennis, skis and golfs.

1951

Secretary:
Stanley L. Miller
11 Ashwood Rd.
Paxton, MA
01612

Representative:
John L. Reid
31 Spring Garden Dr.
Madison, NJ
07940

Carl Johansson now works as a staff specialist (fermentation) for Arthur G. McKee, engineers and constructors. His daughter Lisa was married in the "old home town of Mystic, Conn., in June." . . . **Tom June** is vice president and general manager of the Building Materials Division, Organic Materials, at Koppers Corporation in Pittsburgh. . . . **Carl Luz, Jr.,** holds the post of president at ESCO Plastics, Inc., in Perth Amboy, N.J. . . .**Roy Olson** serves as assistant director of plant engineering at Torrington Co. He is located in Collinsville, Conn. . . . **Merrill Spiller,** class head agent, is currently manufacturing manager for Aviv Corporation, Woburn, Mass.

1952

Secretary:
Edward G. Samolis
580 Roberts Ave.
Syracuse, NY
13207

Representative:
Philip B. Crommelin, Jr.
P.O. Box 38
Stanton, NJ
08885

In March a "mini-reunion" of the Class of '52 was held at the home of **Joseph Lojewski** in Wilmington, Delaware. Those attending were **John Feldsine** and family, **Dud DeCarli, Mike O'Neil,** and **Rick Ferrari,** '51, and their wives. . . . **Edgar Van Cott** holds the post of president of Trendata Corp. in Santa Ana, Calif., where he relocated last October.

1953

Secretary:
Dr. David S. Jenney
109 Wilbrook Rd
Stratford, CT
06497

George Saltus has been appointed director of the Customer Switching Laboratory at Bell Labs in Denver, Colo. Previously, he was head of the laboratory's Support Department. Since 1953, he has been an employee of the firm, and he holds seven patents in military computer circuits, electronic key telephone systems, and Picturephone key telephone systems.

1954

Secretary:
Roger R. Osell
18 Eliot Rd.
Lexington, MA
02173

Representative
Roger R. Osell

Richard Meirowitz has joined Safe Flight Instrument Corp. in White Plains, N.Y. . . . **Raymond Naudin** holds the post of director of international sales for Langston in Cherry Hill, N.J. . . . **Milton Meckler,** president of Meckler Energy Group, Encino, Calif., recently delivered a speech at the annual meeting of the American Section of the International Solar Energy Society in Denver. His presentation included case histories of solar assisted water source heat pump systems now being developed by his firm. Meckler has been named editor of a new reference work, *The Retrofitting for Energy Conservation Handbook,* which will be published late this year or early in 1980 by Marcel Dekker, Inc.

1955

Secretary:
Kenneth L. Wakeen
344 Waterville Rd.
Avon, CT
06001

Representative:
Ralph K Mongeon, Jr.
Riley Stoker Corp.
P.O. Box 547
Worcester, MA
01613

Richard Crook was recently appointed manager of product engineering at the G&O Manufacturing Co. in New Haven, Conn. A member of G&O since 1972, he will now be responsible for product engineering functions as they pertain to the original equipment market and the automotive aftermarket field.

Harold Sauer, vice president of Intermark Associates, Inc., ran last spring for a 5-year term on the Carlisle (Mass.) school committee. He is a present member and past chairman of the planning board, and he has been active with the Carlisle Historical Commission, State Forestry Advisory Committee, and the Carlisle Cub Scouts.

Tarek Shawaf, head of the oldest and largest Saudi Arabian consulting firm, Saudconsult, was pictured on the cover of the April 26th issue of *Engineering News-Record,* McGraw Hill's construction weekly. Shawaf's most active foreign partnership lately has been with Tippetts-Abbett-McCarthy-Stratton of New York. Their combined successes include design assignments on highways and interchanges, a recreational harbor, shore protection and site drainage in the industrial city of Jubail. Although noted for civil assignments, Saudconsult's architectural pride and joy is the Ministry of Planning building, which it designed.

About twelve years ago, Shawaf started his firm with three employees. Today, he employs 250, including twelve graduate engineers. His staff is about ¼ Egyptian; ¼ Pakistani and Bangladeshi; and the other half Syrians, Jordanians, and Saudis. Shawaf, of Syrian descent, was one of the first students sent from Saudi Arabia to study engineering abroad. He enjoys the respect of the Saudi royal family, and has had many good will and business-promotion missions abroad. At home he serves (without pay) as secretary general of the extravagant and modern New Equestrian Club in Riyadh, which boasts 350 members, many of them princes.

Currently his firm has offices or affiliates in London, Houston, New York, and Dublin. He sees his future growth in association with partners from abroad. He also is enthusiastic about the future of solar energy. He says, "In the next ten years I'd like to pursue bringing solar expertise to Saudi Arabia."

Robert Stempel, a vice president of General Motors and newly appointed general manager of Pontiac, has said that Pontiac will remain the "sporty motor division at General Motors," according to an article in the March issue of *American Machinist.*

The image has been carefully nurtured. Burt Reynolds drove a Trans Am in his role as a stuntman in "Hooper." Stempel himself drove the pace car, a Firebird, at the Daytona 500 NASCAR race last winter. Says Stempel, "we don't *race* at GM, but we enjoy the hell out of *motor sports*." Bob is a current member of the President's Advisory Council at WPI.

James Warren serves as vice president of quality control at Pratt & Whitney Machine Tool Division of Colt Industries in West Hartford, Conn.

1956

Secretary:
Rev. Paul D. Schoonmaker
325 North Lewis Rd
Royersford, PA
19468

Representative:
John M. McHugh
431 Beacon Hill Dr
Cheshire, CT
06410

Joseph Paparella has been appointed general manager of Latin American operations for the Foxboro (Mass.) Company. . . . **Donald Lathrop** continues as a teacher of philosophy and ethics at Berkshire Community College (BCC) in Pittsfield, Mass. He has an MS degree from RPI and a master's in social ethics from the University of Southern California. He and his wife, Marion, have started a series of peace vigils at BCC. In April they protested the launching of the first Trident nuclear-powered submarine in Groton, Conn. The Lathrops have three children: Mark, 21; Scott, 18; and Dena, 12.

1957

Secretary
Dr Robert A. Yates
11 Oak Ridge Dr
Bethany, CT
06525

Representative:
Alfred E. Barry
1 Algonquin Rd
Worcester, MA
01609

Ralph Johnson is a manufacturer's representative and resides in Southport, Conn. . . . Last year, **James Richards** was named vice president and general manager of production at Bowers-Siemon Chemical Co. in Coal City, Ill. The firm produces lubricants and chemicals for the wire manufacturing industry, and presently has affiliates in Brazil, India, South Africa, and England. The Coal City plant is Bowers-Siemon's only manufacturing facility in the U.S. Richards says that plant manufacturing capacities will be enlarged by 25 percent in 1980.

Charles Whitney has been named director of research and development for the Wiremold Company, West Hartford, Conn., the leading manufacturer of surface metal raceway electrical distribution systems and flexible air ducts for the air conditioning and automotive industries. Formerly, he was an application specialist with McDonnell Douglas Actron, Hartford, Conn., and a product engineer with Superior Electric Co., Bristol. He did graduate work at Trinity and RPI.

1958

Secretary:
Harry R Rydstrom
132 Sugartown Rd
Devon, PA
19333

Walt Janas, Jr., is a specialist engineer with the Boeing Co. assigned to the Minuteman ICBM update program at Malmstrom AFB in Great Falls, Montana. . . . **Stew Staples,** a contractor and custom home builder in Tucson, Arizona, continues to be active in the Tucson Open Golf Tournament. . . . **William Wesolowski** has been appointed manager of thin film operations at Micro Networks Corp. in Worcester. He is responsible for the manufacturing of thin film resistor networks, as well as research and development of thin film devices. Formerly manager of thin film devices at Sprague Electric Co., he has been in the electronics industry for twenty years. He holds a master's degree in chemistry from Williams College.

1959

Secretary:
Dr Frederick H Lutze, Jr
110 Camelot Court NW
Blacksburg, VA
24060

Representative:
Dr. Joseph D Bronzino
Trinity College
Summit St.
Hartford, CT
06106

David Daubney works as a project engineer at Curtis and Marble Corp. in Worcester. . . . Fr. **Harvey D. Egan,** S.J., recently received tenure and promotion to associate professor at Boston Theology, where he teaches systematic and mystical theology. He has written two books on mysticism and many articles on mysticism, theological methodology, and various theological themes. His latest work is a chapter on the mystical theology of Karl Rahner in the German publication, *Wagnis Theologie*. . . . Dr. **David Evensen**'s daughter, Karen, is on the women's basketball team at the University of California at Irvine. She plans to study engineering.

Dr. **Arthur Halprin** has been promoted to a full professor of physics at the University of Delaware in Newark. He joined the physics department in 1964 as an assistant professor. In 1969, he was named associate professor. He received his doctorate from the University of Pennsylvania. He has published papers in professional journals, and has served as visiting scientist at the Swiss Institute for Nuclear Research, the Fermi National Accelerator Laboratory, and the Los Alamos Scientific Laboratory. . . . **Richard Keats** holds the position of director of the Northeast region for Support Systems Associates, Inc., Burlington, Mass.

The April issue of the *Abrasive Engineering Society Magazine* reports that **Robert Massad** spoke on the evolution of diamond wheels for cutter grinding of carbide-steel workpieces at the spring Technical Conference. He is a senior product engineer in the Bay State Abrasives Division of Dresser Industries, and is responsible for diamond abrasive products and electrochemical grinding. With Bay State since 1959, he has held several engineering posts prior to being appointed to his present post in 1966. . . . **Thomas O'Connor** and **Charles Zisch,** '64, have a girls' soccer team (which they call Charlie's Angels) in Chelmsford, Mass. The Angels took first place in their division last fall and everyone is looking forward to next season.

Robert Steen continues as president of Recreational Enterprises, Inc. in Killington, Vt. . . . **"Jack" Wolfe** serves as vice president and general manager of the Engineered Products Division at EG&G Sealol in Providence, R.I.

1960

Secretary:
Paul W Bayliss
170 Wyngate Dr
Barrington, IL
60010

Representative:
John W Biddle
78 Highland St
Holden, MA
01520

Joshua Alpern was just promoted to GS-16 at the Central Intelligence Agency in the Directorate of Science and Technology. . . . Currently, **William Bonta** is chief of the division of planning for the Environmental Health Administration at the State Dept. of Health in Baltimore, Md. . . . **Donald Cloud** continues as president of Country Home Development Corp. in Guilford, Conn. . . . **Al Materas, Jr.,** is now employed by Robert E. Nolan Co., Inc., Simsbury, Conn., where he serves as a senior management consultant. . . . **Robert Mercer** works as district representative at the Permutit Co. in Charlotte, N.C. . . . **Robert Mulholland, Jr.,** has been transferred to Ft. Monmouth, N.J., where he is a procurement officer in U.S. Army Communications-Electronics Readiness Command. . . . **H. David Sutton** is with Sanders Associates of Nashua, N.H. . . . **Edward Sappet** serves as manager of corporate process engineering at Data General Corp., Westboro, Mass.

1961

Secretary:
John J. Gabarro
8 Monadnock Rd.
Arlington, MA
02174

▶*Born:* to Mr. and Mrs. **George Yule, Jr.,** a son, Todd Michael, on November 5, 1978. Presently, George is a partner of Crampton, Remke & Miller, a consulting firm in Palo Alto, Calif.

Still with Stone & Webster, Boston, **Richard Federico** is now with the Engineering Mechanics Division.

Dr. **H. Richard Freeman** has been awarded the National Aeronautics and Space Administration's Exceptional Service Medal for his work as system engineer for the agency's international ultraviolet explorer. He was cited for his "perseverance and personal dedication, which were responsible in large part for the success of this important mission." Dr. Freeman has a master's degree from Yale and a PhD from the University of Maryland. During the year since it was launched into synchronous orbit, the satellite has provided astronomers around the world with over 4,000 spectral images, and it may lead scientists to a better understanding of elements, temperatures, and pressure within stars.

William Gill, a professional engineer, recently opened with his partner, Gill and Pulver Engineers, Inc. in Sacramento, Calif. Gill and Pulver is a civil engineering firm specializing in water resources planning and development, flood control and flood plain management, land development, and environmental studies. . . . **Lee Hackett** was recently elected president of the American Appraisal Company, the largest operating unit within American Appraisal Associates, Inc., the Milwaukee-based international valuation, mapping, and consulting firm. He started work at the firm in 1963, and was elected vice president in 1975. He has previously served as field supervisor, manager of engineering valuation, manager of industrial valuation division, and as central regional manager and vice president and manager of appraisal operations. He holds an MBA from the University of Chicago.

Merrill Rutman says, "I am spending an academic year at MIT studying operations research, system dynamics, and management information systems. Since September 1978 my family and I have been living in Chestnut Hill and enjoying the Boston area. We plan to be back home in New Jersey this summer." . . . **David Youden** has been promoted to assistant director of engineering at Cone-Blanchard Machine Co. in Windsor, Vt. This is a new position in the engineering department. Since joining the company in 1973, he has served as product development engineer, quality control manager, and most recently, manager of product development.

1962

Secretary:
Harry T. Rapelje
1313 Parma Hilton Rd
Hilton, NY
14468

Representative:
Richard J. DiBuono
44 Lambert Circle
Marlboro, MA
01752

▶*Born:* to Mr. and Mrs. **Joel Freedman,** their second child, a daughter, on March 6, 1979.

Hubert Cole has received his MS in administration of science and technology from George Washington University. He's employed as a senior project officer in headquarters, U.S. Army Test & Evaluation Command, Aberdeen Proving Ground, Md. . . . **Jacob Erlich** has been elected to the board of governors of the Boston Patent Law Association. . . . **George Forsberg** writes: "Expect to be returning to the U.S. later this year following 4½ years in the United Kingdom with Monsanto." . . . **Sharad Gandbhir** recently purchased One Heritage Mall in Berlin, Mass. He expects to make some renovations, and to use the building for investment purposes. He will continue with the same professional clientele, such as physicians and businessmen. Sharad and his wife and three children live in Newton.

Last year **Jay Hochstaine** received his MBA from Chapman College. . . . Still residing in Bogor, Indonesia, **David Smith** is now a project engineer for Laurie, Montgomerie & Pettit in Jakarta.

1963

Secretary:
Robert E. Maynard, Jr.
8 Institute Rd
North Grafton, MA
01536

Representative:
Joseph J. Mielinski, Jr
34 Pioneer Rd.
Holden, MA
01520

Robert Behn, an associate professor at Duke University's Institute of Policy Sciences and Public Affairs, was the author of "Terminating Public Policies" in the October 16, 1978 issue of *The Wall Street Journal.*

In February, **Richard Dann** was promoted to editor of *Power Transmission Design* magazine. Also, he was recently elected to the board of governors of the Cleveland Engineering Society. . . . Dr. **Richard Dominguez** is now a professor of basic engineering and head of the department at Colorado School of Mines. He has an MSCE from Colorado State and his doctorate in civil engineering (ocean engineering) from Oregon State University. He has had 13 years of teaching experience, and serves as a consultant for Brown and Root, Inc., developing ocean structures supporting oil and gas operations, and with Sipen-Speery Systems.

John Goselin has been named supervisor of the product, film emulsion, and plate division at Kodak Park. He joined Kodak in 1963. His most recent appointment was senior product engineer. . . . **Dennis Heath** is still with GE, Circuit Protective Devices Dept., in Plainville, Conn. After three years as product planner in marketing, he has returned to engineering, handling UL liaison work for GE's low voltage power circuit breakers, ground fault products, and large molded case circuit breakers.

Russ Hokanson serves as senior supervisor in the reactor department at the Savannah River Plant in Aiken, S.C. In the past year he has run in five marathons, his best time being 3:21 in Savannah, Ga. His wife, Barbara, is involved with the Girl Scouts. Donna, 13, and Debbie, 10, are active in soccer, basketball, running, and scouting. . . . Dr. **Richard Kashnow** was recently named head of GE's Electronics Laboratory in Syracuse, N.Y. Formerly, he had been at GE's Electric Research and Development Center in Schenectady. . . . **Jim Magaldi** has transferred from Digital's Westfield (Mass.) plant to Maynard as a corporate plant engineer.

1964

Secretary:
Dr. David T. Signori, Jr
6613 Denny Pl.
McLean, VA
22101

Representative:
Barry J. Kadets
7 Bellwood St.
Framingham, MA
10701

Marshall Crow says that he spends a lot of time in the Pacific area on an "interesting contract." He is presently head of the intelligence systems department at GTE Sylvania in Needham, Mass. . . . **Bruce Juhola** holds the position of marketing manager of the Telecom Division of Raychem Corp., Menlo Park, Calif. . . . **Walter Lankau, Jr.,** vice president of Management Decision System, Inc., Waltham, Mass., recently represented his firm at a conference relating to joint European marketing ventures. His firm is a national company in the development and use of problem-solving models and computer software for business analysis and planning. Lankau has an MS in chemical engineering from UMass and an MBA from Wharton School, University of Pennsylvania. In September, the Lankaus will be moving to a new home in Sudbury, Mass.

Arthur Luhtala is still project engineer and government representative for USDA Soil Conservation Service in Meredith, N.H. . . . Dr. **J. Richard Lundgren,** associate professor of mathematics at Allegheny College, Meadville, Pa., has received a Faculty Professional Development grant of $18,220 from the National Science Foundation. The grant is for study during 1979–80 at the University of Colorado, where he will be working in the areas of applied finite mathematics. He will also be

concerned with computer science, and the development of computer programs which can be used in various courses of combinatorics, abstract algebra, and linear algebra. Prior to joining the Allegheny faculty in 1971, Dr. Lundgren had been with New England Telephone Company. He received his master's degree and PhD from Ohio State University. Several of his articles have been published in the *Journal of Algebra*.

Continuing with GTE Sylvania, Dr. **Elliot Wyner** is now with the lighting products group at headquarters in Danvers, Mass. He is an advanced R&D engineer. He, his wife Janice, and three boys live in Peabody.

1965

Representative
Patrick T. Moran
100 Chester Rd
Boxboro, MA
01719

Phil Bachelder now works for James River Graphics, formerly Scott Graphics. . . . **Edward Falkowski** is marketing manager in Tokyo, Japan, for du Pont's Far East Photo Products Department. . . . **Jim Fee** serves as a product manager at Accutest in Chelmsford, Mass. He resides in Winthrop. . . . **Mordecai Gutman,** who has his MBA from the University of Detroit, is currently employed by Texas Instruments as a field marketing specialist involved with dealer and sales training for professional and commercial products. . . . **William Nickerson** is a self-employed consulting engineer in San Francisco.

Phil Ryan has been elected a corporator at Merchants Savings Bank in Manchester, N.H. He is a partner in Bigelow & Co., a Manchester-based management consulting group, which he founded nine years ago. Previously, he was with Humble Oil (Exxon) in Houston, Texas. He has been a member of the accreditation committee at Merrimack Valley College, and has lectured in many business management and Small Business Administration courses, including several presented at WPI. He has an MBA from Harvard, and is a member of the board of advisors, Department of Management at WPI, as well as being a member of the WPI Alumni Association executive committee. In Manchester, Ryan has been associated with the United Way (board of directors); Elliot Hospital (board of directors); and the Greater Manchester Chamber of Commerce. He served as vice president and a director of United Way of N.H.; a member of the Manchester Planning Board; and as a former regional planning commissioner representing Manchester on the Southern New Hampshire Planning Commission.

Still employed as a senior civil engineer by Suffolk County Public Works Dept. on Long Island, **Harry Schneck** is presently in charge of contract highway and bridge construction projects. He, his wife, Sandi, and their two sons live on Great South Bay at Blue Point. . . . **Ronald Schultz,** a senior software specialist for Digital Equipment Corp., Fairport, N.Y., is a resident at Corning Glass Works-Process Systems.

1966

Secretary
Gary Dyckman
29 Skilton Lane
Burlington, MA
01803

Representative
Dr Donald H. Foley
Indianfield Rd
Clinton, NY
13323

Roger Armata has been named superintendent of manufacturing services at Torrington (Conn.) Co. He joined Torrington's engineering department in 1966, and has held a number of posts since. He has an MBA from the University of Hartford. The Armatas live in Torrington with their two children. . . . **Jay Botop** serves as an electrical manufacturer's agent for J.R. Childers & Associates in Pensacola, Fla. . . . **Donald Givens** was recently transferred from his post as manager of product marketing to a sales position in Birmingham, Alabama for Envirotech Corp.

Dave Klimaj has been promoted to program manager within the Office of the Assistant Secretary for Conservation and Solar Applications, U.S. Department of Energy, Washington, D.C. He is responsible for various legislative initiatives mandated by the National Energy Conservation Policy Act. . . . **Paul Malnati** has joined Formation Inc. of Mt. Laurel, N.J., as a senior member of the technical staff. . . . **Dennis Murphy** has been named manager of the Florida Pops Orchestra of Fort Lauderdale. A musician and a consultant in physics at Florida International University, Miami, Murphy plays the recorder, the Moog synthesizer, and the krummhorn. He taught physics for five years at Wentworth Institute, Boston. He holds degrees from Northeastern University and Nova University.

Recently, **Ronald Naventi** completed studies for his MS in energy systems at George Washington University. He is employed as an engineering supervisor in the Nuclear Fuels Operations Division of Bechtel Corp. in San Francisco. He is also involved in nuclear waste management. . . . **C.J. Patch III** serves as a field contract administrator for Bechtel Power Corp. in Hancocks Bridge, N.J. A professional engineer, he is registered in California, Arizona, Texas, and Massachusetts. He, his wife Patricia and two children reside in Vineland, N.J. . . . Dr. **Frank Pfeiffer, Jr.,** has been granted tenure at Nichols College, Dudley, Mass. He is associate professor of management, and received his MBA from Boston College and his PhD from the University of Massachusetts.

Anthony Sacovitch holds the title of chief engineer of the Worcester Group of the Wright Machine Corporation Division, Worcester. The Sacovitches have four daughters: Lisa, Kerrie, Donna, and Lori. . . **Ronald Swers,** is employed by Stone & Webster, Cherry Hill, N.J.

1967

Secretary
John L Kilguss
5 Summershade Circle
Piscataway, NJ
08854

Representative
Raymond C Rogers
92 North Common Rd
Westminster, MA
01473

▶*Born:* to Mr. and Mrs. **Frank Manter,** their first son, Bryan, on November 21, 1978. . . . to Mr. and Mrs. **George H. Rand, Jr.,** a daughter, Susan Elaine, on January 24, 1979.

Richard Court, Jr., has been elected chairman of his local section (Greater Danbury, Conn.) of the American Society for Quality Control. He continues as a quality control engineer for Perkin-Elmer Corp. in Norwalk. . . . **Joe Ferrantino** is now the research group leader of the pilot plant at Monsanto's Bircham Bend plant in Indian Orchard, Mass. He is responsible for both mechanical and chemical process development. In 1967 he started as a process engineer at the firm. Most recently he was a process engineer specialist. . . . **Ronald Jolicoeur** works as a project manager at Teller Environmental Systems, Inc., Worcester. . . . Engineers Inc., headquartered in New Jersey and Milford (Conn.), has appointed **Mafatbhai Patel** as chief structural engineer. He joined the company after being associated with two other companies.

In March **Joseph Maggi** was named vice president of Odyssey Exploration Co., an oil exploration and gas drilling company based in Farmington, Conn., and Houston, Texas. Previously Maggi was tax director of Coleco Industries, Inc. He and his wife, Alice, have two children, Laura, 5, and Jill, 3. . . . **Richard Plummer** has a new job as technical support specialist in microcomputers for Digital Equipment Corp. in Marlboro, Mass. . . . Presently, **Robert Shen** serves as project manager in the engineering department at National Cash Register. He is married, has two children, and resides in Ithaca, N.Y. . . . **Charlie Sisitsky** writes that he is still the director of community development for the City of Medford and lives in Framingham, Mass. His wife Margie teaches and sells pottery at their home studio. They have four children: Tammy, 10; Adam, 8½; Nathaniel, 5; and Jeremiah, 2½.

Stephen Smith is with the New York State Office of General Services, Design and Construction Section. . . . **William Tanzer** has been promoted to assistant superintendent at Eastman Gelatine Corp. in Peabody, Mass. The firm provides about 60 percent of the gelatine used by Eastman Kodak Co. in North and South America.

1968

Secretary:
Charles A. Griffin
2901 Municipal Pier Rd.
Shreveport, LA
71119

Representative:
William J. Rasku
33 Mark Bradford Dr.
Holden, MA
01520

▶*Married:* **Charles A. Griffin** and Miss Rita A. Shaw on March 10, 1979 in Shreveport, Louisiana. Mrs. Griffin, a graduate of Louisiana State University, teaches in the Shreveport school system. The groom serves as a research associate at LSU Medical School.

William Belisle has completed a one-year term as president of Lambda Chi chapter of Kappa Delta Pi, a National honor society in education. He is presently working on an MBA degree at California State University at Long Beach. . . . Recently, **Jeff Decker** got together with **Barrie Peterson,** who owns Birchwood Organization in Centreville, Va. . . . Continuing with Kodak, **Cobb Goff** now serves as senior photographic engineer for the firm in Rochester, N.Y. . . . **Geoffrey Hartung** holds the post of manager of engineering and facilities services at Loctite, Inc. in Newington, Conn. He is a professional engineer.

For over a year, **Joe Hilyard** has been serving as assistant director of the Wisconsin Energy Extension Service's Energy Information Center. He says that Wisconsin, like Massachusetts, is one of ten states chosen by the Department of Energy to carry out year-long pilot programs in energy conservation education. The Center works with County Extension offices in 72 counties to help staff members answer questions and present public energy programs. It also works directly with the media. Joe is a co-host of a weekly live TV program called "Saving Energy" on Channel 3 in Madison. "Lots of fun and a great experience." Previously, Joe was with a consulting firm in Durham, N.C.; had served as assistant editor of *Circuits Manufacturing,* a Boston trade journal; and had been associated with the University of Michigan's Highway Safety Research Institute; and Hamilton Standard. Last year he completed a master's program in journalism at the University of Wisconsin-Madison. He found himself drawn to the "fascinating task of trying to explain and interpret technical material to nontechnically-trained audiences," which he does daily in his current post at the Energy Information Center.

John Hilyard, Joe's twin brother, is plant engineer for Celanese Corporation in Texas. Earlier, he had been employed by Allied Chemical in Ashland, Ky. and Bundy Tubing in Lexington, Ky., and had a tour with the Army with stops in Georgia, New Mexico, New Jersey, and Panama. The Hilyards have three children and reside in Corpus Christi. . . . Presently, **Robert Kohm** works as a senior process engineer at Crawford & Russell in Stamford, Conn. . . . **Peter Konopa** is supervisor of midsize specialty financial analysis at Ford Motor Company in Dearborn, Mich. . . . **Richard Kung** is a member of the technical staff at the Mitre Corporation, Bedford, Mass. . . . **Michael Latina** recently completed requirements for the PhD in applied mathematics at Brown University. Presently he is assistant professor of mathematics at Rhode Island Junior College. He and his wife, Mary-Jeanne, have three children: Michael, 6; Kristin, 4½; and Justin, 2. . . . **Israel Mac** has been appointed by the Mayor of Atlanta (Ga.) to the position of director of the Bureau of Traffic and Transportation Engineering. The bureau supervises Atlanta's traffic control and management systems, and coordinates development of the city's transportation programs and projects. Israel and his wife, Bette, have two children: Melissa, 8; and Joshua, 6.

Steve Pytka, who holds an MBA from Tuck School at Dartmouth, is now in the Strategic Planning Department at Xerox in Rochester, N.Y. . . . **Jeffrey Semmel** joined Raytheon Service Company in June as a senior systems engineer. He is doing contract systems programming work. . . . **William Stanton** is now employed by the Colorado Water Conservation Board Department of Natural Resources in Denver, where he is a senior water resource engineer. . . . **Marshall Taylor** has been named vice president and treasurer of Ryder System, Inc., Miami, Fla. He joined the company in 1974 as manager of capital planning and four months later was promoted to director of corporate planning. In 1975 he was advanced to assistant treasurer, and last year he was elected treasurer. Ryder System, Inc. is an international holding company whose divisions provide essential highway transportation services to businesses and individuals throughout the U.S., Canada, the United Kingdom, and the Netherlands. With 1978 revenue of $1.124 billion, the company was 375th in *Forbes* magazine's 1979 list of the nation's 500 largest companies ranked according to revenue.

1969

Secretary:
James P. Atkinson
41 Naples Rd.
Brookline, MA
02146

Representative:
Michael W. Noga
West Bare Hill Rd
Harvard, MA
01451

▶*Married:* **Richard W. DeLand** and Elisa A. Mazza in Bridgeport, Connecticut on March 17, 1979. The bride, a teacher, graduated from the Seminaria Baptista de Trujillo in Peru. The groom is a computer programmer analyst.

▶*Born:* to Mr. and Mrs. **Douglas J. George,** a daughter, Jamie Lynne, on December 6, 1978. . . . to Mr. and Mrs. **Jeffrey C. Knapp,** their second son, Kevin Williamson, on May 19, 1979. Jeff continues building houses and is now into beekeeping and making molds for weathervanes. . . . to Mr. and Mrs. **Andrew T. Perreault,** their second child, Amy, on December 23, 1978. Matthew will be three in October. . . . to Mr. and Mrs. **Phillip R. Welsey, Jr.,** a son, Kevin Phillip, on February 15, 1979. Kevin joins sisters, Kristin and Karin.

Brian Abraham received an MBA from Suffolk University on Feb. 14th, one semester after being awarded as MS in engineering science from Clarkson College, Potsdam, N.Y. He is a planning engineer in the product planning and management organization at Western Electric, which he joined in 1972. While a lieutenant in the U.S. Army, he was awarded a Bronze Star in Vietnam. He, his wife Jacqueline, and two sons live in Plaistow, N.H. . . . **Roger Dennison** is a member of the Metropolitan Boston Transit Authority Advisory Board, and serves as chairman of the energy efficiency subcommittee for the board. He is a founder and principal of Energy Planning, Inc., a Boston consulting firm that assists building owners in the reduction of energy usage and cost.

Gregory Enz was recently promoted to district manager of coin operations by New England Telephone. He is responsible for all coin telephones, sales and collection in Massachusetts outside of Rt. 128 and in Rhode Island. The Enzes have a son, Christopher, 7, and a daughter, Courtney, 4. . . . **Peter Heins** is a pilot for Eastern Airlines out of Miami, Fla. He and wife, Jan, have two children, and reside in Redland. . . . **Henry Sweet** of Photographic Images has exhibited a series of his color photographs at Gallery 201 in Hartford, Conn. He belongs to the Wachusett Camera Club and the Photographic Society of America. His images extend from Hawaii to Switzerland. He is with the systems division of the Travelers Insurance Co.

1970

Secretary:
F. David Ploss III
208 St. Nicholas Ave.
Worcester, MA
01606

Representative:
Domenic J. Forcella, Jr
25 Hough St.
Plainville, CT
06062

▶*Born:* to Mr. and Mrs. **Roger J. Kern,** their first child, Catherine Mary, on September 2, 1978. . . . to Mr. and Mrs. **George Moore,** a second son last spring. . . . to Mr. and Mrs. **Howard Norcross,** a daughter, Sarah Jane, recently. Howard continues as a general partner in C.E. Norcross & Son, building contractors, in South Chatham, Mass. He is a member of the Massachusetts Home Builders Association, the National Association of Home Builders, a trustee of Cape Cod Contractors Insurance-Trust, a staff officer of the Coast Guard Auxiliary, and a director of the Cape Cod Contractors' and Builders' Association. He is also associated with the yacht club, the Rotary, and the American Management Association. . . . to Mr. and Mrs. **Marc E. Schweig,** their second child, Allyson, last November. Schweig is attending Harvard University on a Western Electric Science and Engineering Fellowship.

James Bagaglio is a quality control technician at Waters Associates in Milford, Mass. . . . **Kenneth Cram** has been awarded the Young Engineer Award from the General Electric Aircraft Engine Group. He was recognized for his outstanding contributions to the resolution of the TF34 engine field problems by virtue of his excellent evaluation engineering direction, often at a great sacrifice of personal time. Among his accomplishments was the completion of over 3000 successful engine test hours on 27 engine builds. Cram is manager of TF34-100 evaluation engineering at GE in Lynn, Mass. . . . **Bernard Dodge** is a university fellow in the Instructional Design Program at Syracuse (N.Y.) University.

U.S. Representative **David Emery** of Maine delivered the commencement address at Berwick (Me.) Academy in June. Recently elected to his third term in Congress, Emergy belongs to committees on Armed Services, Merchant Marine and Fisheries, and House Republican Policy. He is chairman of both the Maine congressional delegation and of the Republican Task Force on Energy. . . . Dr. **Lothar Kleiner,** who received his PhD in polymer science and engineering from the University of Massachusetts last year, is presently a polymer research engineer at Diamond Shamrock Corp., Painesville, Ohio. He also teaches polymer chemistry courses at Lake Erie College, where he is faculty member.

Jeffrey Manty has been promoted by Bethlehem Steel Corp. to division engineer of the Saucon Rolling Mills Division at the Bethlehem plant. Formerly, he was foreman of the plant's combination mill, the number one producer of structural and wide flange steel shapes in the country. Jeff, his wife, Christine, and children, Katie and Daryl, reside in Nazareth, Pa.

In January, **Ed Mason** resigned his job as plant manager with Amoco Chemicals Corporation, a division of Standard Oil in Seymour, Indiana, to accept the position of vice president of operations with Diesel ReCon Company, a division of Cummins Engine Company in Memphis, Tennessee. His new responsibilities include the supervision of 800 people in three manufacturing plants in Memphis, Chicago, and Los Angeles, and the remanufacturing of Cummins diesel engines. Cummins is the largest diesel engine producer with 45 percent of the national market. Ed's wife, Norma, just received her BA in sociology from Indiana University. They have two children: Melissa, 8 and Ed II, 6.

Bob Soffel recently was program chairman for Union Carbide's local office (Parma, Ohio) for the United Way. He writes, "I think WPI's Fund Drive is well-run using successful techniques. Proud to be part of WPI — again!" . . . **Michael Vardeman** holds the post of safety manager for Lonestar Florida, Inc. . . . **Philip Warren** received his MBA from Northeastern University last year. He has been advanced to finishing superintendent in the Graphic Products Division of the Nashua Corporation's Merrimack (N.H.) plant.

Kenneth Kowalchek serves overseas as a financial analyst for U.S. Aid, Dept. of State, Washington, D.C. . . . **Robert Mills, Jr.,** has been appointed director of market research in the marketing organization at State Mutual Life Assurance Company of America in Worcester. He joined State Mutual's actuarial organization as an actuarial assistant in 1971, was promoted to actuarial associate in 1973, senior actuarial associate in 1974, and assistant actuary in 1975. He became a fellow in the Society of Actuaries in 1975, and earned the Chartered Life Underwriter designation in 1977. . . . **Thomas Pandolfi** was just promoted to group leader, software, at Varian Associates in Palo Alto, Calif.

Dr. Richard San Antonio is completing his residency in internal medicine and his wife, Pamela, her residency in pediatrics at Walter Reed Army Medical Center in Washington, D.C. They are currently assigned at Fort Meade, Md. . . . Now out of the Air Force, **James Troutman** presently serves as head of vendor quality engineering at Computervision Corp. in Bedford, Mass. . . . **Glenn White** is working on his PhD dissertation at the National Center for Atmospheric Research in Boulder, Colo. The dissertation involves the observational study of the general circulation in the Northern Hemisphere in summertime.

1971

Secretary:
Vincent T. Pace
4707 Apple Lane
West Deptford, NJ
08066

▶*Born:* to Mr. and Mrs. **Herbert Nock,** a daughter Kimberly Gayle, recently. Nock received his MBA from BU last year. . . . to Mr. and Mrs. **John Petrillo,** a son, Michael Thaler, on May 4, 1979. John is district market manager at AT&T Long Lines in Bedminster, New Jersey.

William Beloff has been named chief engineer at Soil and Rock Instrumentation in Newton Upper Falls, Mass. He and his wife Drucie have two children, Kurt and Andrea. . . . **Jim Crittenden** presently serves as president of OMP Laboratories, Inc., Killingworth, Conn., a firm which he helped found in 1976 and moved to Killingworth in January. OMP manufactures medical diagnostic equipment. . . . **Gordon Govalet** now holds the post of assistant chief engineer at Thames Valley Steel Corp. in New London, Conn. . . . This September **Michael Hitchko** returns to BU to complete his MBA, after spending the last two years with Fluor Corp. constructing cross country pipelines in Saudi Arabia. . . . **Ernest Joyal** is employed by the Naval Underwater Systems Center in Newport, R.I.

1972

Secretary:
John A. Woodward
101 Putnam St.
Orange, MA
01364

Representative:
Lesley E. Small Zorabedian
16 Parkview Rd.
Reading, MA
01867

▶*Born:* to Mr. and Mrs. **Raymond W. Coleman,** a son Gregory James, on March 13, 1979. . . . to Mr. and Mrs. **Mark Dupuis,** their second daughter, Kelly, on November 10, 1978. . . . to Mr. and Mrs. **Donald Polonis,** a son, Timmy, on December 27, 1978.

Douglas Best, who currently works for Cincinnati Milacron-Heald Division, is a registered professional engineer in Massachusetts. . . . **Charles Brine** has successfully completed the PhD program at the College of Marine Studies at the University of Delaware, where he concentrated in the area of marine chemistry (chemical oceanography). . . . **James Colangelo** started on a fellowship in nephrology at Boston V.A. Hospital in July. . . . The **Robert Colps** have a "wonderful two-year-old daughter." Colp is with Foster Wheeler Energy Corp. in Livingston, N.J. . . . **Andrew Cuchiara** has been awarded a PhD in biostatistics from the University of Oklahoma at Norman. He has a master's degree from WPI. Next fall he leaves for Japan where he will be employed in the atomic casualty division of the International Health Unit. . . .

Theodore Fredericks is now a program manager in Rockwell International's Collins Telecommunications Systems Division. The firm deals primarily in government airborne systems.

Andy Glazier is employed by the Perini Corporation at the Seabrook (N.H.) nuclear power plant. The $2.3 billion plant, which is being constructed for the Public Service Company of New Hampshire, is scheduled to have its first reactor operational in 1982. . . . **Linda Gordon** serves as a project leader at Data General Corp., Westboro, Mass. . . . In March, **Howard Levine** presented a paper before the American Physical Society in Chicago. Levine is a graduate student member of the Rutgers University committee to evaluate all athletic policies on campus. . . . **Edward Perkins** has joined Digital Equipment Corp., Maynard, Mass., where he is a senior software engineer in the RT/C Small Systems Software Development Group. . . . Presently, **T. Richard Price** is working for Deevy and Shannon, Inc., consulting engineers in Beaumont, Texas.

David Riedel is a technical specialist for Aetna Life & Casualty in Hartford, Conn. He received his MS in computer science from UConn last year. . . . **Shawn Sullivan** serves as a services engineer at Amstar Corp., Charlestown, Mass. . . . **Donald Taft** is employed by the Courier Corporation, Lowell, Mass. He, his wife Mary, and two children live in Nashua, N.H. . . . **Richard Wallace** works as a senior field engineer at Simpson Gumpertz & Heger, Inc. in Cambridge, Mass. . . . With Norton since 1972, **Richard Willey** is now a manufacturing engineer in the large vitrified wheel area of the grinding wheel division in Worcester. . . **"Jack" Zorabedian, Jr.,** holds the post of production engineer at GE in Wilmington, Mass. He is a member of the planning board in Reading, Mass., where he is also a town meeting member. He is active with AVPAC, a political action committee.

1973

Secretary:
Jay J. Schnitzer
322 St. Paul St
Apt. #3
Brookline, MA
02146

Representative:
Robert R. Wood
14 Stone Brook Rd.
Sudbury, MA
01776

▶*Married:* **James N. Paprocki** and Miss Patricia S. Pollock on March 10, 1979 in Irondequoit, New York. The bride graduated from Genesee Hospital School of Nursing. She is presently employed at the hospital, and is also attending Nazareth College. The groom is a computer analyst at Eastman Kodak Company. . . . **Martin J. Sklar** and Janis L. Price recently in Randolph, Massachusetts. Mrs. Sklar graduated from the University of Toledo, and is with the American Red Cross blood services, Northeast region. Her husband is with Corning Medical Instruments.

▶*Born:* to **Stephen** and **Deborah LaPlante Goodwin,** their second child, Andrew Hilton, on February 28, 1979. Their first child, Tracey, will be three in August. They write: "We are still enjoying the sunny South and warm weather." . . . to **Richard** and **Dianne Lamberto Sargent,** '75, their third child, Rebekah on December 28, 1979. Rebekah joins Julie, 4½, and Peter, 3. Sargent is a senior project engineer at Sala Magnetics, Inc., an Allis Chalmers subsidiary, in Cambridge, Mass. . . . to Mr. and Mrs. **Norman D. Staller,** a daughter Breana Rae, on January 30, 1979. Norman has been promoted to senior engineer at Polaroid in Cambridge, Mass.

Richard Belmonte has become the system safety engineer for the test and evaluation of Army materiel at Aberdeen Proving Ground, Md. . . . **Richard Brontoli** continues in Baumholder, Germany with the 293rd Engineers Battalion. . . . **Ray Cherenzia,** a former WPI wrestler, directs the wrestling program at the Westerly (R.I.) YMCA. Recently, two of the boys he coached placed first and second in the Connecticut A.A.U. freestyle open championships. Ray, who is also the director of the Rhode Island Kids Wrestling Federation, is town engineer for Westerly. . . . Still with GE, **John DiGregorio** is presently a project engineer located in Pittsfield, Mass. . . . **Stephen Dolan** received his MD from the University of Vermont College of Medicine in Burlington last May. He is now interning in internal medicine at the University of Missouri.

In February, **Herbert Hedberg** was promoted to test engineering manager at Waters Associates in Milford, Mass. . . . **David Hubbell,** MD, writes: "Am halfway through a residency in obstetrics and gynecology." He is located in San Diego. . . . No longer with Exxon, **Christopher Kralik** is now a process design engineer in the petroleum group at C.E. Lummus in Bloomfield, N.J. . . . **Andrew Langdon,** who holds an MBA from Wharton (University of Pennsylvania), is with Pennwalt Corp. in Philadelphia. . . . **Ken Lexier** received his PhD in education from Boston University in May.

Wallace McKenzie, Jr., has been named special gifts chairman in Saugus (Mass.) for the 1979 American Cancer Society Crusade. He is a financial and planning consultant at Management Decision Systems of Waltham. Formerly, he was a senior research analyst at Converse Rubber of Wilmington. Currently, he is a member of the Saugus Finance Committee and serves on the Citizen Advisory Council for the Massachusetts Coastal Zone Management Program. He has been a town meeting member from Precinct One since 1975. . . . **David Moomaw** has again taken a job at Fisher-Price, where he is in a new group called Technical Design and Development. He says, "We will be investigating future product concepts as far ahead as the 1988 line of toys."

Robert Newman holds the post of senior systems programmer at Data Terminal Systems, Maynard, Mass. . . . **William Nutter** is presently supporting installation for GE of the Trident missile fire control system at Electric Boat in Groton, Conn. on the U.S.S. Michigan, and is supporting testing of the Trident missile fire control system on the U.S.S. Ohio. (These are the first two Trident submarines to be built.) He also aided in the installation of the Trident/C4 missile fire control system on the U.S.S. Frances Scott Key last fall. . . . Formerly, with Cullinane Corp. in IDMS development and support, **Bruce Olsen** is now the newly appointed systems programmer in the General Systems Division of Management Decision Systems, Inc., in Waltham, Mass. The firm is a privately-held, national leader in the development and use of problem-solving models and computer software for business analysis and planning. Olsen will be working with MDS's financial product, a subset of its Express software. Earlier, he had been a senior systems programmer for Melville Corporation.

Last summer **Paul Parulis** was promoted to senior engineer at General Dynamics Electric Boat. . . . **Daniel Prior** is chairman of the underground training development committee for New England Electric System, Westboro, Mass. . . . **Stephen Robinson** is employed at Honeywell Information Systems as manager of computer terminals marketing support. Recently, he was a candidate for a three-year term on the board of selectmen in Litchfield, N.H. . . . **Mark Whitley** is a reservoir engineer at Shell Oil Co. in New Orleans, La. . . . **Mary Zoeller** holds the post of product marketing engineer at Hewlett Packard Company in San Diego, Calif.

1974

Secretary:
James F. Rubino
18 Landings Way
Avon Lake, OH
44012

Representative:
David G. Lapre
P.O. Box 384
Tunkhannock, PA
18657

▶*Born:* to Mr. and Mrs. **William Dewkett,** a son, Matthew Ryan, on September 12, 1978. . . . to Mr. and Mrs. **Michael J. Kozakiewicz,** a daughter, Melissa, on February 9, 1979. . . . to Mr. and Mrs. **John R. Mason III,** their first child, a daughter, Hilary Alexandra, on February 6, 1979.

After graduating from Georgetown University Law Center, **Alden Bianchi** will join the Chicago law firm of Hume, Clement, Brinks, Willian and Olds. The firm's practice is limited to patent and antitrust matters, both national and international. . . . **William Block** now works at Southern New England Telephone, New Haven, Conn., where he is a data systems specialist. . . .

Rod Broeker serves as an instrument and control systems engineer for SIP Engineers and Contractors in Houston, Texas. He is still active in tournament chess, and is the Texas Chess Association's secretary-treasurer. His wife, Annie, an economic evaluator for Badische Corp., has won the 1979 Outstanding Young Engineer Award. . . . **Wayne Bryant** continues as manager of the systems programming group at Composition Systems Inc., Elmsford, N.Y.

Christopher Cigal is assistant professor of military science in the ROTC department at Washington & Jefferson College in Washington, Pa. . . . Early this year, **Steve Dacri,** now headquartered in Hollywood, returned East for performances at Worcester State College and the Society of American Magicians in Nashua, N.H. He is pursuing a television acting career. . . . Capt. **Robert Foley,** USMC, is located in Beaufort, S.C. . . . Presently, **Thomas Frink** is employed as an industrial electrical engineer. He is active in St. Joseph's Catholic Church, Salem, N.H., especially with high school youth programs. He is considering a religious vocation. . . . **Alan Hahnel** holds the post of chief engineer at Winfrey Structural Concrete Co. in Boulder, Colo. . . . **David Nickless** is a student at Suffolk University Law School in Boston.

Louis Piscitelle is employed as a research engineer at Stowe-Woodard Co. in Newton, Mass. . . . **Anne Rodier** has been appointed second vice president of pension financial operations at Union Mutual Life Insurance Company in Portland, Maine. She joined the company in 1974 as a pension service coordinator trainee. Today she is responsible for group pension accounting and actuarial functions. She is a fellow of the Society of Actuaries. . . . Currently, **William Russell** serves as plant engineer at Acigraf International Corp. in Branford, Conn. . . . Still with Patti Bros., Sudbury, Mass., **James Sgroi** now holds the position of vice president of manufacturing.

In February, **William Stafford** received his professional engineering license. He has been promoted to chemical and geotechnical branch manager at Walker Laboratories, Inc., Columbia, S.C. . . . **Alfred Swierad, Jr.** is a member of the technical staff at Bell Telephone Labs in Holmdel, N.J. . . . **Lee Turner** holds the post of manager of operations and financial analysis at DWG Corp. in Miami Beach, Fla. . . . **Richard Ventre** now works as a production supervisor on the Surlyn unit at du Pont.

1975

Secretary:
James D. Aceto, Jr
70 Sunnyview Dr.
Vernon, CT
06066

Representative:
Frederick J. Cordella
24 Imperial Rd.
Worcester, MA
01604

▶*Married:* **Peter J. Arcoma** and Regina M. Kozlowski on April 28, 1979 in Fairfield, Connecticut. Mrs. Arcoma graduated from Briarwood School for Women and is an executive secretary at Stauffer Chemical Company, Westport. Her husband is a project manager for H. Wales Lines Company in Meriden. . . . **Glenn R. Ekwall** and Della L. Copley on April 21, 1979 in Barboursville, West Virginia. Mrs. Ekwall graduated from Marshall University and is a music teacher in Ashland, Ky. The groom works as a technical service engineer at U.O.P., Des Plaines, Ill. . . . **Stephen Fitzhugh** and Joan Sposito on May 6, 1978 in Manchester, Connecticut. The groom has held a new post as product development engineer at GE since October. . . . **Robert D. Klimm, Jr.,** to Miss Margaret I. Healy on April 21, 1979 in Branford, Connecticut. Mrs. Klimm is a Becker graduate. The bridegroom has an MSCE from Northeastern. . . . **Stephen Wojciak** to **Ruth Kodis,** MS '79, last August. The bride works for III Systems of Cambridge, Mass. and is a graduate of Catholic University. Her husband is a development engineer for GE in Schenectady, N.Y.

▶*Born:* to Mr. and Mrs. **Steven F. Manzi,** a son, Brennan Steven, on October 17, 1978. In February, Manzi was transferred to the Waltham Medical Division of the Hewlett-Packard Company, where he is a mechanical design engineer. . . . to Mr. and Mrs. **David Schwartz,** a daughter, Jennifer Leigh, on November 10, 1978. David is a position area engineer at Daniel International Corp. in Fulton, Missouri.

Continuing as plant engineer for Tampax, Inc., Rutland, **Bruce Altobelli** recently purchased a house in Clarendon, Vt. . . . Last September, **Joel Angelico** joined Polaroid Corp. in Norwood, Mass. . . . **Rick Aseltine** has accepted a new post with the GE Medical Systems Division, where he is a systems design engineer working on computerized axial tomography whole body scanning. He is located in New Berlin, Wisconsin. . . . **Norton Bonaparte, Jr.,** serves as administrative assistant to the city manager in Grand Rapids, Mich. He holds a master's degree in Public Administration from Cornell. . . . **Karen Brozowski** has been transferred and promoted from process engineer, Corning Glass, Central Falls, to senior process engineer, Corning Medical RIA Division, Corning Glass Works, Medfield, Mass. . . . **Thomas Colp** receives his Doctor of Optometry from New England College of Optometry this year. . . .

Harry Danberg has joined Monsanto Corp. in Miamisburg, Ohio, where he is woorking with DOE on coal gasification projects.

Judith Nitsch Donnellan, who recently was named the first woman vice president of Schofield Brothers, Inc. and head of the firm's Freeman Engineering office in Attleboro, Mass., was one of several women engineers quoted in the article, "Women engineers: here to stay," which appeared in the May issue of ASCE's *Civil Engineering.* The article was concerned with discrimination against women engineers in government and industry.

Last fall, **John Fitzpatrick** ran the New York Marathon (his first) in 3:46. Still with Exxon, he is also studying for his MBA at Rutgers. His wife, **Ginny Giordano Fitzpatrick,** is a systems marketing representative for Service Bureau Company. She is working for her MBA at Fairleigh Dickinson University.

Dave Fowler of Information Services at American Can Company, was slated to run in the Greenwich (Conn.) 5-mile Road Race in April. Prior to the race, he ran about six miles a day, but considers that ten miles a day would have been "serious training." Dave, who has a new daughter, goes to NYU at night, where he is studying for his MBA. "There are lots of things in the cooker right now," he says.

Dr. **Charles Innis, Jr.,** holder of a PhD from WPI, has been appointed to the post of senior research engineer in the Morgoil Bearing Department at Morgan Construction Company, Worcester. Previously, he had done engineering for the firm on high speed rolling mill equipment and had performed economic analysis on existing and new mills. Earlier, he had taught engineering at UConn and had been associated with Electric Boat. He belongs to ASME and the American Society of Lubrication Engineers. He is on the executive committee of the Worcester chapter of ASME. His most recent publication is "Predicting Mechanical Design Reliability Using Weighted Fault Trees," *Failure Prevention and Reliability,* ASME, 1977.

Tom John is an instructor in chemical engineering at Cleveland (Ohio) State University. . . . Continuing with Sikorsky Aircraft, Stratford, Conn., **Edward Karedes** now works as design engineer. . . . **Gene LaCroix** was recently promoted to Lasalign product manager for Diamond Engineering Corp. Formerly product supervisor, LaCroix has been instrumental in developing new electronics and packaging for the laser light guideline used in the lumber and wood products industries. He has had extensive experience in quality control management with Texas Instruments. In his new post, he will be responsible for product marketing and new application consulting for saw mills, veneer and plywood plants, particleboard converters, furniture and other wood product manufacturers.

Robert Martinaitis is a member of the technical staff at Hughes Aircraft Company in Fullerton, Calif. . . . **Richard Perreault,** who lives in Westboro, Mass., now works as a field engineer for circuit test products at Hewlett-Packard in Lexington. . . . **Christine Powers** is a project engineer at Baxter Travenol, Deerfield, Illinois. . . . **Francis Schlegel** received his MBA from the University of New Haven in January. . . . Since the first of the year, **Steven Sweeney** has been working for the naval plant representative (special projects officer) at GE in Pittsfield, Mass., where he is an industrial engineer. He has received his MBA from the University of Hartford.

1976

Secretary:
Paula E. Stratouly
318 Thornberry Court
Pittsburgh, PA
15237

Representative:
Lynne M. Buckley
648 Commercial St
Braintree, MA
02184

▶*Married:* **Nancy B. Duncanson** and Don Golba of Buffalo, New York on April 21, 1979. Both the bride and groom work in the Linde Division of Union Carbide. . . . **H. Warren Fairbanks III** to Peggy A. Walker in Whitinsville, Massachusetts on April 7, 1979. Mrs. Fairbanks graduated from Worcester State College and is a speech therapist in the Bellingham school system. The bridegroom is with Thermo Engineering, Inc., Worcester.

David Altieri has changed jobs. Now he is employed as an education representative with Honeywell Information Systems. Although he is based at Wellesley (Mass.) Education Center, he travels to customer sites throughout this country and Europe. . . . **John Arden, Jr.,** works for Stone & Webster in Boston. . . . **Alan Briggs** writes that he completed the Boston Marathon in 2 hours 48 minutes. . . . **Hugo Cuevas, Jr.,** who received his master's in fisheries and allied aquacultures at the International Center for Aquaculture, Auburn (Ala.) University last year, is presently working in his home country, Colombia, at Recursos S.A., a fishing company. He is also doing consulting work on fish culture development. . . . **David Graham** has earned his MS in mathematics with high honors from Worcester State College.

In February, **Stephen Jennette** became a systems programmer after being an applications programmer for a year and a half at Norton Co. . . . **William** ("B.J.") **Johnson** continues as director of programs for Phi Gamma Delta Fraternity in Lexington, Ky. . . **Roger Locantore** is a lab facilities engineer at Hamilton Standard in Windsor Locks, Conn. . . . Presently, **Steven** and **Madeleine Gauthier Lowe** are engineers with the York (Pa.) Division of Borg Warner. . . . Since January, **John Manning** has been working for Megatest Corp. as an applications and marketing engineer. The home plant is in San Jose, Calif. John has opened an East Coast sales office in Wakefield, Mass. . . . **Robert Milk** has been transferred to Raleigh, N.C. as project manager for Electronic Data Systems. . . . 1/Lt. **Michael Miller** is with the U.S. Army Corps of Engineers at Ft. Rucker, Ala.

1/Lt. **Edward Perry II** of the Foreign Technology Division at Wright-Patterson AFB, Ohio, recently received the Air Force Commendation Medal. He was presented with the award for his work as a computer system plans and programming officer at Robins AFB, Georgia from 1976 to 1978. . . . **Wayne Pryor** is a systems coordinator for Data General in Massachusetts. . . . Having left Ford Motor Co., **Charles Putnam** is now a development engineer at Machlett Laboratories in Stamford, Conn. . . . **Raymond Robey** holds the post of research engineer at A.D. Little, Inc., Cambridge, Mass. . . . **Paul Selent** works for Exxon Research & Engineering in Florham Park, N.J. . . . Since January, **William Van Herwarde** has held a new post as an engineer in one facet of GE's nuclear program in Schenectady, N.Y. He is utilizing his past experience with pumps. . . . **Kevin Wall** is a physicist at GE in Schenectady. . . . **Robert Winter** was recently appointed assistant district manager of the Baltimore District of Raymond International Builders, Inc. Prior to accepting sales engineering assignments with the Pile Group, Bob was assigned to Pile and Spencer, White and Prentis jobs as project manager and superintendent.

1977

Secretary:
Kathleen Molony
Apt #1
29 Seaview Ave.
Norwalk, CT
06855

Representative:
Christopher D Baker
P O Box 35
Page, AZ
86040

▶*Married:* **Leo J. Cappabrianca** and Margaret Granata on February 11, 1979. The couple moved to Colorado in March. The groom is an electronic design engineer at Digital Equipment Corp. in Colorado Springs. . . . **Steven B. Kovner** to Marcia Gracie on December 18, 1978. The bride is a junior majoring in chemistry at Brown University. . . . **Ronald A. Rice** to Miss Rene R. Price in Worcester on March 2, 1979. Mrs. Rice attended Northeastern University, Boston, and plans to attend Cape Coral (Fla.) School of Hair Design this fall. Her husband is currently a painting contractor in Holden, Mass.

Michael Abrams graduates with an associate degree in electronic engineering from Nashville State Technical Institute in September. . . . **Stephen Albino** works as a components engineer at Prime Computer Company, Framingham, Mass. . . . **Chris Baker** is a civil engineer with the Arizona Department of Transportation. . . . **John Brady** serves as a product marketing engineer at Texas Instruments in Houston. . . . **"Biff" Braswell,** who continues with GE in the large steam turbine department, Schenectady, is also pursuing his master's degree at RPI. . . . Previously with AT&T Long Lines, **Bill Cunningham** is now with Data General in Westboro, Mass., where he is a data communications instructor in the marketing department. . . . **Robert Dolan** is a material utilization analyst at the Ford Motor Co. stamping plant in Cleveland. He was recently promoted to his present post from the production scheduling department.

Robert Ferrari holds the post of project engineer at Chas. T. Main Engineers in Boston. . . . **Kenneth Fox** is an account associate in sales support at the Foxboro Company in West Hartford, Conn. . . . **Frank Gilbert** serves as supervisor of vendor control, mechanical test consultant, at Wyman Gordon in North Grafton, Mass. . . . Recently, **Eric Hertz** was promoted to account executive II at AT&T Long Lines in White Plains, N.Y. He is responsible for the Pepsico national account. For recreation, he jogs on the beach at Old Greenwich, Conn. . . . **Brian Huff** is a project engineer at Ingersoll-Rand Research in Princeton, N.J. . . . **Jim Leighton** works as an assistant engineer at Raytheon Missile Systems, Bedford, Mass. . . . **J. Barry Livingston** is a software engineer at Digital Equipment Corp. in Merrimack, N.H.

Currently, **Marc Meunier** is a field engineer covering southern Florida for Industrial Risk Insurers. He is located in Miami. . . . **Michael Oakes** received his MSEE from the University of Illinois in May. . . . **Mark Puputti** serves as a production engineer at Polaroid Corp. in Waltham, Mass. . . . **Dave Ramsden** is at medical school in Chicago. . . . **Allan Shear** is a class II engineer for the City of Woonsocket, R.I. . . . **Robert Stack** has joined the Wayne (Newark) office, York Division, Borg-Warner Corporation. . . . **Dan Sullivan** is a self-employed consultant in Auburndale, Mass. . . . **Robert Thompson** works as a systems programmer at McDonnell Douglas in St. Louis, Mo.

1978

Secretary
Cynthia Grynick
303 Wolcott St.
Waterbury, CT
06705

▶*Married:* **William T. Davis, Jr.** and **Beth Raymond,** '79, on January 27, 1979. The groom is working as an electrical engineer doing logic design at Sperry Univac in Bluebell, Pa. . . . **Mark J. Hebert** to Eileen McGregor on January 6, 1979. Currently, the bridegroom is a teaching assistant in the ME department at WPI, where he is working for his MS. . . . **Lawrence N. Parretti, Jr.,** and Miss Victoria L. Livngstton on February 17, 1979 in Cornwall, New York. Mrs. Parretti graduated from Worcester State College. Her husband is employed by Perini Corp.

Gerald Baird, Jr., is a second lieutenant in the U.S. Army Ordnance Corps. . . . **Louis Collette** serves as a mechanical systems engineer at Rockwell International in Richardson, Texas. This fall, he will start graduate school at Southern Methodist University in Dallas, where he will study for his MSME. He and his wife Debbie live in Allen, Texas. . . . **William Collins** is a special projects engineer at Stone & Webster, Boston. . . . **John Crossin** works as a senior mechanical engineer at Digital Equipment Corp., Tewksbury, Mass. He and his wife Laurie live in Stow.

Adrienne Dill has a teaching assistantship at Georgia Tech. and teaches soils labs while studying for a master's in geotechnical engineering. . . . **John Downes** is an environmental engineer in the Division of Hazardous Materials in the Kentucky Dept. of Natural Resources, Columbia, Ky. . . . **Jay Gehrig** is with Raytheon in Norwood, Mass. . . . **Bryce Granger,** who works for Parker Hannifin Corp., has bought a house in Ravenna, Ohio. . . . **Dwight Hardin** works at Control Logic in Natick, Mass. . . . **Keith Herreman** serves as a division representative for Westinghouse in Athens, Ga. . . . **Eugene Jakubowski** is a product marketing engineer at Texas Instruments in Houston, Texas.

Recently, **Ken Kummins** completed an intensive six months of studies at Westinghouse's Nuclear Plant Engineer School. Presently, he is training on a prototype of a nuclear powered aircraft carrier. After his first qualification period is completed, he will be a qualified engineering officer of the watch. . . . **Frank Leahy** is completing his master's degree in operations research at the University of California at Berkeley and enjoys "California so much I've decided to take a job here next year with Intel Corp., a semi-conductor manufacturer in Santa Clara." He'll be working in the production planning and scheduling department, where the plan is to eventually automate many of the planning processes currently performed manually. . . . **Jim Morris** is an electrical engineer at Motorola in Plantation, Fla.

Jill Neal is a manufacturing management trainee at GE in Cincinnati. . . . **Rory O'Connor** serves as a technical writer for systems software at Wang Laboratories in Lowell, Mass. . . . **Dimitrios Promponas** works as a programmer at Prime Computer, Inc., Framingham, Mass. . . . **Larry Shiembob** is employed as a design engineer at Williams Research, Walled Lake, Michigan. . . . **Karlis Viceps** is an environmental engineer at Pickard and Anderson in Auburn, N.Y. . . . **William Walton** is studying for his MS in geotechnical engineering at Cornell University.

Kaps go the distance at the Boston Marathon, April 16, 1979, Hopkinton, Mass.

Before: (left to right) Tony Biancaniello, '62; Pat Moran, '65; Bill Shields, '65; Les Hart, '63; Jim Fee, '65.

After: Celebrating at home of Bill Shields

School of Industrial Management

William Densmore, '57, was recently named vice president of abrasive operations in the United States and Canada for Norton Co. Since 1971 he had served as vice president and general manager of the grinding wheel division. In 1946 he joined Norton as an industrial engineer. He is a registered professional engineer, and serves on the Management Board of Advisors at WPI.

Arthur Soderberg, '55, former purchasing agent at Coes Knife Co., Worcester, is retired and living in South Dennis, Mass.

John O'Malley, '62, controller of Holden (Mass.) District Hospital, has been named to the Massachusetts Hospital Association's task force on budgeting and cost efficiency. He is on the MHA Financial Advisory Committee. Controller at the hospital for 13 years, he also holds advanced membership in the Hospital Financial Management Association. He is a past president of the Worcester chapter, National Association of Accountants, and founder and chairman of Central Massachusetts (Hospital) Controllers Association. A Bentley College graduate, he also has an MBA from Anna Maria.

Charles Mason, '65, holds the position of manager of U.S. Steel in El Dorado, Arkansas.

Richard Carroll, '71, has been named director of manufacturing for Hydr-O-Matic Pumps in Ashland, Ohio. The firm is a leading producer of waste water and sewage transfer pumps for domestic, industrial and municipal applications, and is a division of Wylain Inc. of Dallas. Previously, Carroll was with Weinman Pump Co., Columbus, and Warren (Mass.) Pumps, Inc., where he was manager of manufacturing. An Air Force veteran, he is also a member of the Society of Manufacturing Engineers and the American Society of Metals.

Arthur Quitadamo, '74, holds the post of vice president in the Commercial Loan Department at Worcester County National Bank. He is responsible for managing the bank's international function. Previously, he was corporate credit manager for Crompton & Knowles Corporation.

Raymond Jolie, '77, has been appointed treasurer of G.F. Wright Co., Worcester, He joined Wright in 1965, and was most recently assistant treasurer of the firm. He belongs to the Capital Requirement Committee in Sturbridge, Mass., and graduated from New England School of Accounting.

Joseph Cusimano, '78, has been appointed field sales manager, abrasive marketing group, at Norton Co., Worcester. He started work at Norton in 1966, and has served on the board of the Young Men's Business Association of Worcester. He graduated from Middlebury College in 1962. He will be moving back to Worcester from Glastonbury, Conn.

Prof. **Richard N. Cobb,** John E. Sinclair professor emeritus of mathematics at WPI, died May 5, 1979 at his home in San Diego, California, where he had lived since 1973.

Prof. Cobb taught at WPI for 27 years, and was head of the mathematics department for three years. In 1964 *The Pedlar* was dedicated to him. In 1966 he received the WPI Board of Trustees Award for Outstanding Teaching. He was a member of Skull.

A former chairman of the board of deacons and former clerk of the First Baptist Church of Worcester, he also had been a member of the La Jolla, Calif. Presbyterian Church. Previously, he was affiliated with the Friends of the Worcester Free Public Library and the Worcester Foundation for Experimental Biology.

Prof. Cobb belonged to the Mathematical Association of America, Phi Beta Kappa, Pi Mu Epsilon, the National Council of Teachers of Mathematics, and ASEE. He graduated from Bowdoin and received his master's degree from Harvard University. He was head of the mathematics department for five years at Deering High School in Portland, Me., and had taught at Williston Academy, Los Alamos Ranch School, Bowdoin, Bates College, and Lehigh University. He was born on June 5, 1911 in Portland, Me.

He is survived by his wife, Barbara Cobb; a daughter, Suzanne C. Platt of Edina, Minn.; a son, Richard D. Cobb of Watertown, Conn.; and two grandchildren.

Ernest L. Thrower, '01, a retired mining engineer who celebrated his 100th birthday in January, died on March 14, 1979 in Cleveland, Ohio.

Mr. Thrower was born in Brattleboro, Vt. on January 24, 1879. In 1901 he graduated as a mechanical engineer from WPI. He had been associated with Pope Toledo Co.; Brown Hoisting Machinery Co.; F.C. Greene Engineering Co.; E.L. Thrower, mining engineers; and the Great Northern Railway. He joined the old W.H. Warner & Co., Inc. in 1913, where he was named general manager of mines in 1920 and consulting engineer in 1929. Later, he became vice president and general manager of Warner Collieries Co.

A former vice chairman of the Ohio State Mine Examining Board, Mr. Thrower was also a past president of the Canterbury Golf Club and a member of the Cleveland Athletic Club and the Baptist Church. He was a past secretary-treasurer of the Cleveland chapter of the WPI Alumni Association.

Three of his nephews attended WPI: *Emmett A. Thrower, '27; Alvin E. Thrower, '30;* and *Charles W. Thrower, '52.*

Edward A. Hanff, '10, of Pittsburgh, Pennsylvania, a retired vice president of the former Swindell-Dressler Co., died on February 16, 1979.

He was born on November 29, 1889 in Rutland, Mass. In 1910 he received his BSEE from WPI.

Mr. Hanff, who was president of the class of 1910, belonged to a number of engineering societies. He was a member of the National Watch and Clock Club. In the 1950's he retired from Swindell's (now Pullman-Swindell Co.) engineering department.

George E. Clifford, '12, of Ann Arbor, Michigan, passed away on March 29, 1979. He was 90 years old.

From 1929 to 1953 he was with Wolverine Tube in Detroit, where he retired as plant engineer. From 1954 to 1958 he did part-time work in the Willow Run Laboratory of the Engineering Research Institute of the University of Michigan.

A native of Fitchburg, Mass., he was born on June 27, 1888. He studied mechanical engineering at WPI. He belonged to the Masonic bodies, including Scottish Rite and the Shrine. The assistant treasurer of the First Presbyterian Church of Ann Arbor, he was also a former president of the Detroit chapter of the WPI Alumni Association. He belonged to the Engineering Society of Detroit.

Everett Hutchins, '15, passed away in the Knollwood Nursing Home in Worcester on February 25, 1979. He was 88 years old.

In 1956 he retired from the New England Electric System, where he had been employed for 30 years. During his career, he had also been with the New York, New Haven and Hartford Railway Co., Morgan Construction Company, Richard French Iron Works, and Eastern Bridge & Structural Co.

Mr. Hutchins was born on Dec. 18, 1890 in Worcester. He graduated as a civil engineer in 1915. He belonged to the Worcester Horticultural Society.

Payson A. Perrin, '16, of Harvey, Illinois passed away last October.

He was born on Feb. 20, 1894 in Boston, Mass. He graduated as a civil engineer from WPI. During his lifetime he was associated with the U.S.C.&G. Survey for five years, and served in France with the U.S. Army in World War I. He was also employed by the Pennsylvania Water & Power Co.; the State Highway Department in Olympia, Washington; and the U.S. Engineer Office in Pittsburgh, Pa., from which he was retired.

Howland Buttler, '18, of Chesterfield, Missouri, a retired chemical director from Dr. Pepper, died recently.

After graduating as a chemist from WPI, he joined Mallinckrodt Chemical Works as an analytical chemist. Later, he worked for the University of Illinois, St. Louis Coke & Chemical, Monsanto, and Anheuser-Busch, Inc. He was with Dr. Pepper from 1931 to 1960.

Mr. Buttler belonged to the American Chemical Society and the Society for Soft Drink Technologists. He was an elder of the Highland Park Presbyterian Church in Dallas. He was born on October 26, 1895 in Worcester.

Guy F. Woodward, '20, former superintendent of distribution at Massachusetts Electric Co., died in Worcester on May 4, 1979 at the age of 81.

He had been with Massachusetts Electric for 43 years when he retired in 1963. He was born in Clinton, Mass. on April 2, 1898, and later studied at WPI.

Mr. Woodward served as president of the Tech Old Timers in 1966-67. He belonged to the Transmission and Distribution Committee of the Electrical Council of New England, the Appalachian Mountain Club (life member), the Worcester Mechanics Association, Worcester Economic Club, and the Exchange Club. He was a past president of the New England Society of Underground Engineers, past chairman of the Worcester chapter of AIEE, and past president of the Worcester Tennis Club.

A former commissioner of the Mohegan Council of Boy Scouts, he was one of the earliest recipients of the Silver Beaver Award. He was a member of the New England Regional Sea Scout committee, and started the first organized Sea Scout program in Worcester.

He was a 50-year member of the Masons, a trustee of the Worcester Historical Museum, and a member of the Worcester Craft Center, where since 1964 he had been a weekly volunteer assistant to the director.

Dr. **Cyril Israel, '21,** a physician in Woonsocket, Rhode Island, for 42 years, died at his home on April 5, 1979. He was 79.

A native of Millville, Mass., he was born on Feb. 24, 1900. In 1921 he graduated as a chemist from WPI. He received his MD from Boston University Medical School in 1926. He practiced medicine in Woonsocket until his retirement in 1969. For two years he served as president of the medical staff at Woonsocket Hospital and as an associate member of Fogarty Memorial Hospital.

Dr. Israel belonged to the Woonsocket Medical District Society, the Rhode Island Medical Society, the Congregation B'nai Israel, B'nai B'rith, the Rhode Island Jewish Home for the Aged, and the Masons, of which he was a 50-year member.

Percival E. Meyer, '23, of Westfield, Massachusetts, a retired executive vice president of Cortland Grinding Wheels Corp., died of cancer on March 10, 1979.

He was born in Westfield on June 10, 1901. In 1923 he graduated as a chemist. He spent a year with the Fiberloid Corp., then joined Cortland, where he was employed for 46 years. He retired in 1970 as executive vice president.

A member of the Masons and ATO, Mr. Meyer also belonged to the Exchange Club, the Congregational Church, the Blandford Country Club, and Connecticut Valley Shell Club. In 1967 he was elected to a three-year term on the board of directors of the voluntary, non-profit Grinding Wheel Institute, an association of manufacturers of grinding wheels and other bonded products, organized to promote the best interests of users of the products and members of the industry. He was the father of *Richard S. Meyer, '60.*

Gridley Buddy, '26, of Jacksonville, Florida died recently.

He graduated as a chemist from WPI. From 1926 to 1941 he worked as a textile chemist. From 1942 to 1948 he was with the U.S. Department of Agriculture. In 1952 he received his MEd from the University of Florida. For a number of years, he was a teacher at Samuel W. Wolfson Senior High School in Jacksonville. He belonged to Theta Chi.

Donald A. Calder, '26, of Wyckoff, New Jersey, the retired president of C. S. Brainin Corp., died on April 25, 1979.

He was born in Worcester on Nov. 28, 1903. After receiving his BSEE from WPI, he worked for Thos. A. Edison Industries, Allied Control Co., Western Electric, and Engelhard Industries. Several years ago, he retired from Brainin Corp. and Stern Metals Corp. of Mount Vernon, N.Y. He belonged to SAE, Skull, and AIEE.

Fall 1979

WPI journal

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Editor: H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Design: H. Russell Kay

Typesetting: County Photo Compositing, Inc., Jefferson, Mass., and Davis Press, Inc., Worcester, Mass.

Printing: The House of Offset, Somerville, Mass.

Address all correspondence to the Editor, *The WPI Journal*, Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

The WPI Journal (ISSN 0148-6128) is published for the WPI Alumni Association by Worcester Polytechnic Institute.

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The WPI Journal is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second class postage paid at Worcester, Massachusetts.

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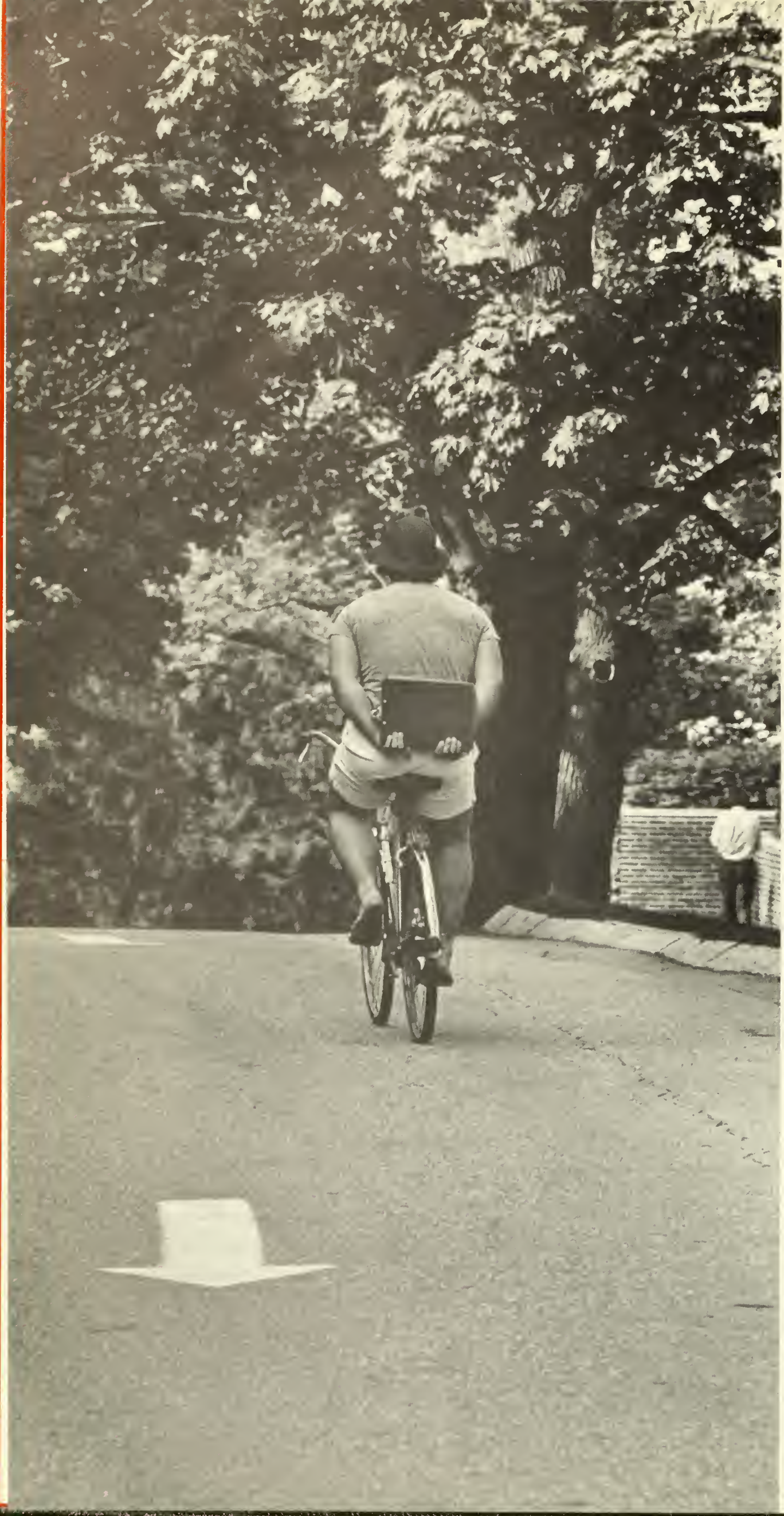

by Russell Kay

Research by Jean Stilwell

IT IS POPULAR to categorize decades of social history with catch phrases: the jazz era of the '20s; the depression '30s; the war-torn '40s; the complacent '50s; the turbulent '60s; the self-aware '70s. The exact term you choose, of course, depends on what aspect of the times particularly interested or affected your life.

There is reasonably general agreement that the 1970s have been peculiarly a time of turning inward, of examining values and feelings. The '60s had been a time of questioning, too, a time of social upheaval, but the questions were directed outward — people demanded that solutions for problems come from other people and institutions. As a result, a lot of good things happened, or at least were earnestly set into motion: some meaningful civil rights action, long-overdue social welfare programs, an infusion of spirit and money into education, a space program that landed men on the moon. But this same outer-directedness also resulted in the quagmire of the Viet Nam War, in an economy that grew ever more out of control, in an unwillingness to face the consequences of industrial and municipal pollution, and a growing appetite for everything, including energy from fossil fuels.

At the tail end of the 1960s, however, things began to change. People started to look for answers inside themselves. All sorts of "self-help" philosophies, techniques, systems, and books proliferated in this new era, and the signs of the times were varied indeed:

Revisiting the 1970s at WPI

▶Encounter groups, EST, and transcendental meditation
▶Dr. Atkins' diet revolution, macrobiotic cookbooks, and Cuisinart food processors
▶Watergate: the decline and fall of Richard Nixon
▶*People* magazine (which made it big) and *New Times* (which had more heart, but folded)
▶OPEC, gas-pump lines, wood stoves, and diesel cars
▶Consciousness-raising, assertiveness training, dressing for power, and looking out for number 1
▶Digital watches, pocket calculators, and video games
▶Bob Dylan, Dolly Parton, bye-bye Beatles, funk, punk, reggae, and disco
▶*Star Wars, The Godfather, Roots, The Muppet Show,* and *Crockett's Victory Garden*
▶Jogging, racquetball, kung fu, and the NFL on Monday nights
▶Solid as gold and sound as a dollar.

▶The once lowly tee-shirt was no longer underwear but a vehicle for making personal statements.
▶We almost lost Detroit with nuclear reactor problems, but instead we got Three Mile Island.
▶Smokey the Bear was quietly retired and Woodsy Owl installed in his place (pollution evidently being a bigger problem than forest fires).
▶The Olympic games went to Munich and the whole world lost.
▶Walt Disney World offered us an ultimate fantasy.
▶Skylab went up into space, then fell down and hit Australia.

DURING THESE YEARS of the last decade, it has not only been individuals who have looked inward for direction; so too have institutions, and none more than Worcester Polytechnic Institute.

The groundwork for the '70s began with the faculty planning committee which wrote the Two Towers report that led to the creation of the new curriculum called the WPI Plan. And it was the WPI Plan which was the touchstone of the times for Worcester Polytechnic Institute. Just what happened, you ask?

▶Creating the design for a new technological education.

▶Refining the details of the model, then, one by one, bringing them into practice.

▶Restructuring and redesigning every single undergraduate course taught at WPI.

▶Winning both acceptance and renown, on campus and in the national arenas of higher education and of engineering, and getting the WPI Plan accredited.

▶Wrestling with the enormous problems that yearly threatened to sink the whole enterprise.

▶Developing workable ways of promoting and evaluating student projects.

▶Defining a meaningful humanities minor required of all students.

▶Divining a new way of getting students to relate their technical majors to the social world.

THE 1970s WERE A TIME of becoming, of growing. In virtually every area we can look at, the figures show considerable increase since 1970.

Students:
In 1970 there were 1,792 undergraduates, in a total student body of 2,363. In 1979 there are 2,375 undergraduates in a student population of over 3,500. In 1970, 1,520 students (including 41 women) applied for admission, and 541 enrolled. In 1979, 2,009 students made application (214 of them women), for an entering class of 658.

Faculty:
While the student body grew by 48 percent over the decade, the full-time faculty only grew from 158 to 180, a mere 14 percent, although the number of part-time, adjunct, and affiliate faculty has risen from 17 to 80.

Campus:
The campus has increased slightly in size, from about 45 acres in 1970 to its present 56. Most of this growth reflects the addition of Higgins House, plus the Ellsworth and Fuller residences along Institute Road.

In 1969, the campus had 504 dormitory beds; in 1979 it has 912. (There are about as many fraternity beds now as there were then.) Laboratory space grew somewhat from 94,078 square feet to 98,749. Classroom space, however, shrank considerably, from 62,735 to 48,927 square feet, reflecting both the change in emphasis toward project work (much of it carried out off campus) and the increased use of alternate instructional tools, such as videotape. For these reasons, also, conference room space grew from 3,475 to 9,340.

Library:
In 1969, WPI's Gordon Library had fewer than 61,000 volumes. Now it has more than triple that number and is, in fact, approaching the building's design capacity of 200,000 volumes. And that doesn't count in the nearly 600,000 technical reports, mostly on microfiche, nor the 30,000 audiovisual items, including audio and video tapes and cassettes, records, and films. At the beginning of the decade, WPI had no real archives; now there is a significant and growing collection of items that reflect WPI's history and heritage, plus a special librarian to manage the program.

Departments:
In the last decade, WPI has added 3 new departments — Computer Science, Life Sciences, and Social Science and Policy Studies — and new graduate degree programs in biomedical engineering, biomedical science, construction project management, fire protection engineering, hydrodynamics and water resources, management, and mathematics for secondary school teachers. History and English were merged into a single department, Humanities.

Only two people who were department heads in 1969 still hold that position — Prof. Donald Zwiep of Mechanical Engineering, and Prof. Donald Johnson of Humanities (then, History).

Continuing Education:
Enrollment in evening graduate school programs has tripled over the decade, from less than 200 to some 650 this year. The area of enormous growth, however, has been in short (1-3 days) courses aimed at professional development. Where there were barely more than 100 people registered in 1975, the projection for the current school year is over 2,000.

In a related area, WPI's five-year-old co-op program has grown from 8 students to over 50, and over the period nearly 90 students have participated.

Finances:
In 1970, WPI's budget was about $9.7 million, with a deficit of nearly $400,000. That has grown to the 1979 budget of $21.3 million. Over the entire period, the budget has been balanced with an aggregate surplus (retained operational earnings) of $452,289.

WPI's endowment has grown from $24.6 to $35.2 million, due in part to many generous gifts and bequests from trustees and others, and the value of the physieal plant has increased from $18 to $30.5 million.

Student Finances:
The eost of education has grown, not just for WPI but for its students as well. With the consumer price index having somewhat more than doubled over the decade, tuition has just about kept paee, rising from $2,100 to $4,350. Over the same period, however, financial aid to students has nearly quadrupled, rising from $767,000 in 1970 to $2,823,904 last year, as a number of new endowed scholarship funds have been added.

Research:
Research sponsored by outside organizations has grown from $1.76 million in 1971 to over $3 million.

Alumni Generosity:
Giving to the Annual Alumni Fund has increased from 1970's $134,000 to 1979's record level of $575,000. During the past six years, WPI has won the prestigious U.S. Steel award, given by the Council for Advaneement and Support of Education, no less than three times.

Giving to WPI:
Other giving to WPI has been impressively large. During the eapital fund drive, The WPI Plan to Restore the Balance, in the years 1972-1977, WPI exceeded its $18.5 million goal by over $400,000. The generosity and leadership provided by WPI's trustees has helped the eollege keep pace with the times, maintaining an attractive and funetional physical plant, and continually improving the quality of our already exeellent programs.

Computers:
In 1969, WPI acquired its second computer, an RCA Spectra 70/46, which gave the campus timesharing capabilities for the first time. This created such a demand, however, that in 1971 a second mainframe computer, a DEC-10, was installed and used strictly for timesharing. By 1976, the Spectra was simply overloaded with administrative computing, and was replaced with a larger and faster Univac 90. Now, in 1979, the DEC-10 is being run near capacity and is beginning to show its age (discrete transistors, no IC's).

But there are other computers around too. A recent computer census at WPI shows the Electrical Engineering department leading the list, with 24 Digital Equipment Corporation LSI microcomputers, plus PDP-7, PDP-8, and PDP-11/10 minis, and a Honeywell 6/43. Computer Science comes next, with a PDP-11/10, two Raytheon RDS-500, a Rockwell AIM-65, and a number of other microcomputers, plus an incredible variety of terminals and other associated devices. Mechanical Engineering has three different PDP-11's, two of them dedicated to special purposes in the nuclear reactor and in materials engineering. Chemical Engineering has two minicomputers, both DEC, and the Mathematical Sciences department finishes up the list with an Apple microcomputer.

NUMBERS ALONE, HOWEVER, cannot tell the story of what has happened at WPI. Far too many students have walked over Earle Bridge during that period. Here's a quick overview of some of the events that have made WPI such an exciting place to be during this past decade.

1970

The Cambodian invasion and nation-wide student demonstrations. The first faculty constitution adopted at WPI. Computer science department established. Stoddard Residence Center opened. Environmental Systems Study Program funded by $200,000 from the Alfred P. Sloan Foundation. WPI wins national 1st place in Clean Air Car Race. Higgins House bequeathed to WPI.

1971

Faculty donate two weeks during the summer for planning purposes and WPI Plan implementation. Carnegie Corporation grant of $188,000 received to aid summer planning. First videotape viewing station set up in Gordon Library; television studio opened in Higgins Labs. Charles W. Moore Co. report on a physical plan for WPI's future presented to the campus. September entering class is the first able to enroll under the WPI Plan. Free cross-registration among Worcester Consortium colleges initiated. First off-campus project center opened at U.S. Army Natick Labs.

1972

Intersession offered for the first time, 150 short courses in three weeks. Exchange program begun with The City University of London. Project Center opened at St. Vincent Hospital. $18.5 million five-year fund drive announced. National Science Foundation (NSF) awards WPI $733,400 -- largest grant ever under its College Science Improvement Program. Campus Judicial System adopted. First competency examinations given under the Plan. Three students graduate under the WPI Plan, and Lesley Small becomes WPI's first woman graduate. "Cookie" Price, dean of faculty, has heart attack and is forced to retire early. In the fall, 14-week semesters are abolished and replaced with 7-week terms. Life Sciences department established. First blind student enters. "Negotiated admissions" policy started. Geetha Bhatt is first woman to receive PhD. NSF advisory panel visits WPI to monitor Plan implementation.

1973

Student mail boxes installed in renovated 1st floor of Daniels Hall. Tech News changes its name to WPI Newspeak. Fall entering class is the first to be entirely under WPI Plan. Ellsworth and Fuller residences open (funded by donations of the Ellsworth and the Fuller foundations). IQP center established in Washburn. Kresge Foundation grants $150,000 for renovation of foundry into student project center. First women students in ROTC. 3-2 programs begun with Holy Cross, Regis, and Elmira Colleges.

1974

National Endowment for the Humanities awards $180,000 for humanities sufficiency implementation. Exchange program begun with ETH (federal technical school in Zurich, Switzerland). Acting on a WPI Petition, City Council closes West Street through the campus on a trial basis, but reopens it after nine months. Sloan Foundation gives $350,000 for implementation of Interactive Qualifying Project. Renovations to Morgan Hall begun. NSF gives WPI $48,000 for Plan evaluation. Alumni Fund wins U.S. Steel award. Goat's Head Pub expanded by students. Ford Foundation gives unrestricted $180,000 Venture Fund grant to WPI to be used innovatively.

East campus closed to car traffic and parking; the "greening of the campus" begun! History and English merged into Humanities department. Social Science and Policy Studies department established. Economics, Government and Business merged into Management department. Washington D.C. Project Center opened. As school opens in the fall, Morgan renovations force the use of Harrington Auditorium as a temporary dining hall. Mellon Foundation grants $150,000 for faculty development in the Humanities. Salisbury Laboratories closed for remodeling, its inhabitants redistributed throughout the campus.

1975

Venezuelan students arrive at WPI under special program. NSF awards WPI an additional $430,100. The graduating class is 50 percent Plan, 50 percent non-Plan. 3-2 programs with Anna Maria and Assumption colleges announced. Major grants toward Salisbury renovation received from the Alden Trust, Dana Foundation, and the Kresge Foundation. Freshman Seminar program begins. Workshops on Teaching
earning begin. Arm and hammer weathervane stolen from atop Washburn Shops. Society of Women Engineers chapter receives charter.

1976

Co-op program begun. WPI Plan accredited by Engineers Council for Professional Development. Lilly Foundation awards $123,000 for Humanities and Social Sciences. Boynton Hall closed for renovation as Salisbury reopens. (Musical offices.) Rockefeller Foundation grants WPI $100,000 for IQP implementation. Program in Urban and Environmental Planning begun. Trustees vote to allow two faculty representatives at meetings.

1977

First sorority, Phi Sigma Sigma, organized. Sanford-Riley Hall remodeled. Freeman Plaza dedicated by Howard Freeman. Arm and hammer replica installed on Washburn as building exterior is renovated. President Hazzard announces retirement in one year. Football team wins only one game — trustees ponder what to do about it.

1978

Blizzard of '78 closes WPI down for three days. Plan to Restore the Balance announces $18.9 million raised. Football retained as varsity sport. Prof. Jo Ann Manfra becomes first woman to win tenure at WPI. Exchange programs begun with University College, London, and Trent Polytechnic Institute. Edmund T. Cranch inaugurated as WPI's 12th president. Boynton Hall reopened. Alumni Fund wins U.S. Steel honorable mention. Center for Firesafety Studies created. Selective admissions policy readopted.

1979

First U.S. master's program in fire protection engineering announced. Astronomical observatory dome erected on Goddard Lab. First blind student graduates. Alumni Fund meets Dana Foundation challenge grant — alumni giving increased 45 percent in one year, to $575,884.

AS THE 1970s draw to a close, WPI can look back on these years as a time of enormous change, of defining and reaching toward new goals and using new ways to attain existing goals. It has been a time of self-study, of trying to find out what WPI is and should be doing, of hard work by faculty and administration. The WPI Plan has been brought from conception to reality, and it provides a new and firm base for WPI's future.

Approaching the '80s, Worcester Polytechnic Institute is in the strongest shape it has ever been in. We command enthusiastic support from industry, the world of higher education, and alumni. If the campus seems quieter than it was a few years ago, that's because we're consolidating the gains we have already made. The rough outlines of our enterprise, shaped in the early years of the 1970s, are now being polished to a high lustre with a very fine grade of administrative and educational sandpaper.

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HOME
VISITOR
BALL
STRIKE
OUT

Previewing the 1980s at WPI

THE WHOLE BUSINESS of education is predicated on looking to the future. We learn from the past so that we may better deal with the social and intellectual and moral and technological situations that are bound to arise in times to come. We learn in order to grow, and that too implies a future.

Planning for the future is vital to any successful organization, but especially so for one like WPI, concerned with technology now changing at faster and faster rates. Simply maintaining an operation like Worcester Polytechnic Institute is an enormously costly undertaking. To do so without concern for tomorrow would represent a waste of time, effort, and money. Well then, what should be done?

That, in essence, was the charge given by the Board of Trustees to its Planning and Resources Committee a year ago. Co-chairmen Arthur E. Smith, '33, and Stanley C. Olsen were asked to evaluate the needs of the college for the near future and identify those areas where additional capital support (read that money) would be needed. Their report, presented to and adopted by the Board last June, shows a careful balancing of alternatives and directions.

UNDERLYING ASSUMPTIONS

Before looking at the physical needs of the college, a number of assumptions about the future had to be made, and some choices of direction indicated. Among these were:

▶*High-school graduates:* The number of high-school graduates will begin to decline during the first few years of the 1980s, and the rate of decline will increase in 1981-82.

▶*Applicant pool:* The demand for technical and scientific education will remain strong, but it is not certain that the percentage of qualified students will rise. Efforts must be made to increase the pool of applicants to WPI.

▶*Financial aid:* It is apparent there will be increased need for student financial aid at both undergraduate and graduate levels. High priority must be given to scholarship, loan, and work-study programs. Federal programs and regulations will plan an increasing role in this area.

▶*Educational orientation and enrollment:* WPI will continue to emphasize undergraduate education and to improve the WPI Plan. Undergraduate enrollment will be held at its present level of about 2,400, or possibly decreased to around 2,200 if that proves economically feasible.

▶*Graduate and continuing education:* Opportunities here at the master's degree level will expand. WPI should align its programs to take advantage of these opportunities, strengthening its offerings in appropriate disciplines.

▶*Faculty development:* The extraordinary demands of the WPI Plan, particularly in the recent years of transition and implementation, has taken a toll of our most valuable resource, our faculty. Ways must be found to help renew and reward this group.

▶*Academic program support:* Rapidly changing technology, coupled with the hands-on approach to equipment use encouraged at WPI, has created substantial need for new laboratory facilities and equipment and for new teaching tools.

▶*Student support services:* Because of the nature of the WPI curriculum, with its strong reliance on individual student action and planning, our advising and counseling services are in urgent need of strengthening.

▶*Athletics:* WPI will continue to emphasize lifetime sports and intramural activities, and WPI will field teams that are competitive at the intercollegiate level.

As the committee discussed plans and options, other assumptions and realizations emerged. It became abundantly clear, while looking for places to locate additional athletic fields, that the college is land poor. Most of the land on the main campus is occupied and used about as heavily as anyone would want. Salisbury Park to the north and Bancroft Hill to the west form natural (if attractive) boundaries.

As with Salisbury and Boynton, efforts will be aimed at renovation and restoration rather than razing or rebuilding.

FACILITY NEEDS

Bricks and mortar type improvements are the easiest to think about, they seem emotionally to give the most visible return for the money ... and they cost the most. But there are very real needs, some carried over as unmet objective of the last capital fund drive, the WPI Plan to Restore the Balance.

Central Service Facility: Moving the Plant Services operations from the middle of the campus, in their current scattered and somewhat makeshift quarters, to a home of their own is a key to the "greening of the campus" objective which is central to WPI's future plans. *Estimated cost: $750,000.*

Performing Arts: Alden Memorial Auditorium: Growing interest in performance has resulted in virtually constant use of Alden for lectures, concerts, rehearsals, films, and plays. The auditorium has a number of acoustical problems, and the stage wiring needs replacement. *Cost: $55,000.*

Washburn Shops: Some 550 students now take materials processing lab courses in this second-oldest campus building. Most of the machinery and equipment is 40 to 50 years old, plagued with breakdowns and the need for constant repairs. Increased use has accelerated the need to update and reequip the laboratory. Upper floors will be used to house the departments of Management and Social Science and Policy Studies. *Cost for remodeling: $1.12 million. Cost for reequipping: $300,000.*

Atwater Kent: In this current home of the Electrical Engineering department, you can still see where the trolley cars used to come and go. Computer Science is a relatively young department which has, however, very close ties to EE. Students in each department take courses and laboratories in the other, and both disciplines require extensive computer laboratories. Together, these departments account for 35 percent of the student body. It is planned to move Computer Science (which has had at least three different buildings in the past ten years) into a new and permanent home in Atwater Kent. Extensive remodeling will be necessary. *Cost for remodeling: $1.62 million. Cost for reequipping: $412,000.*

Kaven Hall: Civil Engineering laboratories and classroom facilities in Kaven Hall need to be upgraded and modernized. More importantly, however, we must upgrade and reequip the structural and geotechnical laboratories. *Cost for remodeling: $120,000. Cost for reequipping: $155,000.*

Energy Conservation Program: While many aggressive efforts at energy conservation have been made in recent years, more are needed. Called for now are capital expenditures for storm windows and insulation for Salisbury, Washburn, Atwater Kent, Higgins Lab, Stratton, Olin, Kaven, and Goddard. *Cost: $75,000.*

Fraternities: The Trustee Committee felt that a method should be found by which WPI can assist the fraternities, which have provided housing for WPI students for generations, to replace, upgrade, and modernize their buildings. Most fraternities occupy wooden frame buildings which were not designed for the heavy use and wear and tear that they are currently subjected to. However, the Committee deferred any firm recommendation for action at this time.

▶**Total cost for facilities improvements: $4.6 million.**

ENDOWMENT OBJECTIVES

Scholarship Funds: More than 65 percent of WPI's students have received financial aid in the form of grants, loans, or through work-study arrangements. WPI wants to add $1 million to its student aid funds.

Professorial Chairs: Endowed faculty positons are vital in WPI's efforts to attract and retain outstanding scholars in many fields and to broaden the base of our educational offerings. Two new endowed chairs are planned. Total cost: $1.5 million.

Building Endowment: The building endowment fund has been established to ensure that selected buildings can be maintained at an optimum level while at the same time reducing the burden on the annual operating budget. Cost: $500,000.

▶ **Total endowment objectives: $3 million.**

IMPROVING THE CAMPUS ENVIRONMENT

WPI is fortunate to have Salisbury Park, owned by the city of Worcester, as an attractive green belt to the north. Our playing fields, the Higgins House grounds, and the Baptist Church provide a western border of green to our campus. Together, these two areas mark a natural and permanent boundary to the campus.

Toward the south, WPI has crossed Institute Road with the addition of the Ellsworth, Fuller, and Stoddard dormitories. While the college owns some of the wood frame buildings in the neighborhood, not all the college-owned property borders the campus proper. To the east, Boynton Street has been for many years a natural boundary, although WPI now owns 70% of the property between Boynton and Dean Streets. On all other sides, the campus is surrounded by busy traffic arteries: Institute Road, Salisbury Street, and Park Avenue.

The trustees wish WPI to acquire buildings and land, in predetermined areas of interest, whenever they come on the market. These properties will be open to such uses as student housing, fraternity sites, parking, playing fields, academic or support service facilities, and green-belt zones. As each property is acquired, a careful evaluation of buildings should be made to determine whether to retain or raze the structures (the latter to eliminate maintenance costs and problems). $450,000 is recommended for property acquisition.

Playing Fields: Let's assume WPI had adequate field space in 1965. The student body then numbered 1,247 students. Now we have nearly double that number of students, and the area of available field space has actually been reduced.

This becomes especially critical in the light of Title IX and WPI's need to provide athletic fields for women's varsity softball and field hockey. We do not currently have any adequate field for field hockey.

And our students are using the fields. Last spring, the intramural softball program involved over 800 students on 53 separate teams, playing more than 300 games. This intensive and unrelenting use of the playing fields is simply wearing them out, leaving no time for reseeding.

It is proposed that:

▶The existing soccer field will be enlarged and improved to meet the demands imposed by this sport.

▶The existing track must be replaced with one that meets intercollegiate standards and has improved drainage. An artificial surface is planned, and the spurs which currently infringe on the baseball field will be eliminated.

▶The baseball diamond will be relocated.

▶A. J. Knight Field will be rebuilt and reconditioned for use by field hockey and lacrosse.

▶Alumni Field will get a new artificial surface so that it will be available for multiple uses, and lighting will be increased to extend the use of the field into the evening hours.

▶Tennis courts on Boynton Street will be resurfaced.

▶**Total cost for playing field improvements: $1.04 million.**

West Street: Closing West Street through the campus is an unfulfilled dream. Success or failure will be determined by political action. If successful, $65,000 is planned to relandscape the area.

EQUIPMENT AND LIBRARY NEEDS

Equipment: WPI continues to provide modern, fully equipped laboratories for the use and instruction of our students so that they can enter their professions armed with the best possible training and experience. The project-oriented WPI Plan has generated a concurrent need to upgrade and modernize our laboratories. *Cost of equipment purchases: $762,000.*

Library: WPI has maintained a fine library facility, which also benefits from the Worcester Area Cooperating Libraries. While the collection is generally excellent, there is a need to augment our holdings in life sciences, management, and engineering and science. *Cost: $65,000.*

Computer: WPI's DECsystem-10, acquired in 1972, is both approaching saturation (being in use 90 percent of the 24-hour day) and showing its obsolescent technology in a lack of repair components. The growth of student interest in computer science and the benefits available in new computer technology indicate that the system should be upgraded. Under consideration is a DECsystem-20. *Cost: $500,000.*

▶**Total equipment and library needs: $1.3 million.**

ACADEMIC PROGRAMS

Faculty Development Awards: The prime reason for the success of WPI and the Plan has been the wholehearted efforts of the faculty. To sustain and further improve our programs will require a conscious institutional effort to recognize outstanding service to WPI and to provide the opportunity for renewal and strengthening the faculty's academic competence.

The faculty development program is designed to build on the present sabbatical leave program (which provides half salary), and will reach a significant number of our faculty to influence WPI's educational environment. Trustee Fellowships will provide the remaining half of the sabbatic year salary, and will be awarded on a competitive basis, three awards each year for three years. Sabbatic Supplements will enhance the attractiveness of a sabbatical leave where an external organization provides a portion of the missing half salary. Finally, Industrial Awards will be used to encourage industrial contacts which may lead to sabbatical opportunities. *Cost of the program: $200,000.*

Academic Programs: Special funding is needed to strengthen various academic programs. Computer science needs more depth and breadth in its faculty. Management, which is actively serving industry through off-campus and evening programs, should be further improved. The Manufacturing Engineering program needs to be upgraded, and we face stiff competition from industry for faculty. The newly announced Fire Protection Engineering program has been well received, but much start-up work needs to be done. The Center for Educational Research and Development needs support to continue its evaluation of our curriculum. Graduate research programs in Biomedical Engineering will eventually be self-sustaining, but they must be developed to that point. *Total cost: $250,000 per year for three years.*

▶**Total cost for academic programs: $950,000.**

OPERATIONAL NEEDS

Unrestricted gifts for operational purposes have provided significant budget support. The major source of these funds has been the Annual Alumni Fund, which has enjoyed phenomenal growth in recent years. Anticipated operational needs are $500,000 this year, $600,000 in 1980-81, and $700,000 in 1981-82.

▶**Total operational needs: $1.8 million.**

THREE STAGES

It is expected that these plans will take about three years to bring about, with a total goal of $13.2 million. Three stages of proceeding have been defined, with the highest priority going to faculty development, Atwater Kent, Kaven, the soccer field, and tennis courts. The second stage includes Washburn and Alden Memorial. The third stage covers the central service facility, Alumni Field, the new track, and the baseball field. Divided equally among all three phases are energy conservation, endowment, and equipment and library needs. Divided equally among stages two and three are land acquisition and academic programs.

THE STRATEGY FOR MEETING OUR NEEDS

When the Plan to Restore the Balance was announced in 1972, it was clearly a general appeal aimed at corporations, foundations, alumni, parents, and any other potential donors. The money needed for the facilities and programs outlined in this article, however, will be raised differently. Basically, for each area a number of target donors or organizations have been identified, and proposals will be made on an individual basis. There will be no general solicitation of alumni for these needs, although the Annual Alumni Fund will continue its normal operation.

CONCLUSION

In the cover letter which accompanied the report, Messrs. Smith and Olsen noted that "we started out deliberations after the successful conclusion of our $18.5 million capital campaign. As in all long-term efforts of this nature, there are unmet needs and others that have been accelerated during the campaign period. We discovered what we had suspected — our plant is well maintained and effectively used. However, new technologies and shifting student majors have created new needs and pressures."

Alumni Fund wins another major award — again!

It was announced this summer that the 1977-78 Alumni Fund was the recipient of the coveted U.S. Steel Alumni Giving Incentive Award. The award itself consists of $5,000, a certificate, and a moebius strip sculpted from stainless steel.

This marks the third U.S. Steel award for the WPI alumni Fund in six years, the last one (an honorable mention) being just last year. Because of this, WPI's award was given in a newly created category, called Sustained Excellence, which includes Dartmouth College, California Institute of Technology, Phillips Exeter Academy, and the University of Michigan.

In the photo above, Stephen J. Hebert, '66, secretary-treasurer of the Association, is shown receiving the award certificate from James T. Hosey, vice president and executive director of the United States Steel Foundation.

Meet the President

The newly elected president of the WPI Alumni Association is John H. McCabe, '68. He is currently vice president, finance, at Carl Gordon Industries, and he will become executive vice president there on December 1.

In past years, McCabe has been president of the Worcester County Alumni Club, member-at-large of the Executive Committee, chairman of the Student Alumni Services and Group Travel committees, and vice president of the Association. In addition, he has been president of the Poly Club and was a member of the Inauguration Committee for President Cranch.

Jack lives with his wife Leslie and three children in Worcester.

Four alumni elected, reelected to WPI Board

Two alumni were newly elected to the WPI Board of Trustees this summer, while two others were reelected to their seats as alumni trustees.

Joining the Board as an alumni trustee is Joseph Glasser, '35, a management consultant and retired vice president of Raytheon, who lives in Andover, Massachusetts. The other new Board member is Robert C. Stempel, '55, vice president and general manager of General Motors' Pontiac Division. Mr. Stempel resides in Bloomfield Hills, Michigan.

Reelected to second terms on the Board was C. Marshall Dann, '35, former U.S. Commissioner of Patents and currently a partner in the Philadelphia firm of Dann, Dorfman, Herrell and Skillman. Mr. Dann lives in Wilmington, Delaware. Also reelected to his second term is Hilliard W. Paige, '41, director of International Energy Associates Limited, of Washington, D.C.

New program for class secretaries begins

Don't be too surprised if you suddenly hear from the secretary of your class asking for news and information. It's all part of a new program designed to improve the quality of the class notes in the *Journal* with the help of class secretaries.

Announced at the Alumni Leadership Workshops held during Homecoming Weekend, the program will see periodic mailings from each class secretary to a portion of his or her class. We hope that this new "personal touch" will open up channels of information that we haven't been privy to in the past, and that we will be able to print more and more interesting news about your WPI classmates and other alumni. We've had an enthusiastic reception from the class secretaries, so now it's up to you to do your part.

What's happening?

BASKETBALL

*December 1	Nichols
*December 5	Norwich
*December 8	Bowdoin
December 10	Springfield
December 13	Wesleyan
*January 12	Amherst
January 18	Middlebury
January 19	Union
January 23	Babson
*January 25	Drew
*January 26	Bates
*January 31	Brandeis
*February 2	Suffolk
February 5	Trinity
*February 8	Coast Guard
*February 13	Williams
*February 16	Lowell (ALUMNI NIGHT!)
February 21	MIT
February 23	Clark
February 27	Tufts

WOMEN'S BASKETBALL

December 6	Western New England
*December 8	Emmanuel
December 10	Merrimack
*December 12	Bryant
January 24	Gordon
*January 26	MIT
*January 30	Anna Maria
February 1	AIC
*February 4	Suffolk
*February 5	Wheaton
February 7	Assumption
February 11	RIC
February 13	Brandeis
*February 15	Colby
*February 18	Clark
*February 20	Amherst
February 21-23	MAIAW State Tournament
*February 26	Babson

INDOOR TRACK

December 1	MIT, Brandeis
December 8	Bentley
December 12	Tufts
February 13	Holy Cross, Worcester State
February 16	Easterns
February 23-24	New Englands

WRESTLING

*November 29	Boston College
December 5	Trinity
*December 8	Bowdoin
December 13	Brown
December 15	Harvard-UNH-Mass Maritime
*January 15	Coast Guard
January 19	Williams, RPI
January 24	Amherst
January 26	RIC, Univ. of Maine
*February 2	Lowell
February 5	MIT
February 9	Hartford, Wesleyan
February 13	Western New England
February 17	New England JV Tournament
*February 21-23	NEW ENGLAND INTERCOLLEGIATE VARSITY CHAMPIONSHIP AT WPI!
February 28	NCAA Div. III Championship

SWIMMING

November 28	Babson
*November 30	Holy Cross
*December 6	Boston College
December 12	Clark
January 22	Southeastern Mass
January 26	Lowell
February 2	Coast Guard
*February 7	Trinity
*February 9	Keene State
February 14	Brandeis
*February 16	Tufts
March 6-8	New Englands

FILMS ON CAMPUS

(* = admission charge)

*November 25	*Dr. Strangelove*	Alden, 7:00
	Dark Star	Alden, 9:15
*December 2	*Up in Smoke*	Alden, 7:00
*December 9	*Close Encounters of the Third Kind*	Alden, 7:00
*December 16	*The Boys from Brazil*	Alden, 7:00
January 15	*College The Aerial Wire*	Kinnicutt, 7:30
January 17	*The Son of the Sheik His Royal Slyness*	Kinnicutt, 7:30
January 22	*Dr. Jekyll & Mr. Hyde The Champion*	Kinnicutt, 7:30
January 24	*The Iron Mask*	Kinnicutt, 7:30
*January 28	*Superman*	Alden, 7:00
*February 3	*The Greatful Dead Movie*	Alden, 7:00
February 5	*Emperor Jones*	Kinnicutt, 7:30
*February 10	*An Unmarried Woman*	Alden, 7:00
February 12	*Black History: Lost, Stolen or Strayed* *This is the Home of Mrs. Levant Graham* *Paul Laurence Dunbar, America's First Black Poet*	Kinnicutt, 7:30
*February 17	*It Came from Outer Space*	Alden, 7:00
*February 19	*Fantastic Animation Festival*	Alden, 7:00
*February 23	*The Pink Panther*	Alden, 7:00
	The Pink Panther Strikes Again	Alden, 9:15
*February 24	*The Return of the Pink Panther*	Alden, 7:00
February 26	*Malcolm X*	Kinnicutt, 7:30
March 4	*A Hero Ain't Nothin' but a Sandwich*	Kinnicutt, 7:30

CONCERTS

December 3	Ron Hudson, Guatemalan guitarist	Alden, 8:00
December 10	Beacon Brass Quintet	Alden, 8:00
January 21	Richard Henzel: "Mark Twain in Person"	Alden, 8:00
February 4	Donald Bogul: "Toms, Coons, Mulattoes, Mammies, and Bucks"	Alden, 8:00
February 25	Israel Piano Trio	Alden, 8:00

HOMECOMING 1979

Another gathering was held, this for members of WPI's undefeated 1954 football team. Although they later had to watch WPI lose the afternoon's game to Bowdoin College, they can now take heart at the team's finishing out the 1979 season with three wins, one better than last year (which was Coach Bob Weiss's first season with the Engineers), and three times as many as the disastrous season of 1977. Now, for next year ....

With the winner of the alumni road race, Bob Ferrari, '74 (left), and runner-up Bill Light, '71 (right), is Patty Maguire, WPI's new assistant alumni director.

No, it's not an invasion of the balloon people, but a bloody mary party thrown for Alumni Fund volunteers at Homecoming. Besides the morning wake-up drinks, the happy-face balloons, buttons proclaiming "WPI, We're on Top," and engineer's caps were given to the many people who worked and helped out in setting the record-breaking, challenge-meeting 1978-79 Fund.

At the finish of the alumni 4-mile road race, coming in somewhere in the middle of the pack is Super-Runner no. 25, Jack McCabe, president of the Alumni Association.

WPI's Public Man in Public Relations

by Ruth S. Trask

HERE'S A QUESTION for you:
What does the term *public relations* mean?

Did you think of stirring up publicity, or spokesmen who issue statements in other people's names? Well, there's a whole lot more to public relations than that, according to Roger N. Perry, Jr., '45, WPI's PR director: "It's a profession that many people just don't understand." As if to back up his point, Roger keeps a small sign near his desk that reads:

Public relations is the management function which evaluates public attitudes, identifies the policies and procedures of an individual or organization with the public interest, and plans and executes a program of action to earn public understanding and acceptance.

THESE WORDS have been the cornerstone on which he has built, over thirty years, what is probably the longest-running and most respected public relations career in Worcester County. One of the interesting things about this is that he started out as an engineer.

"I didn't start out in public relations," Roger recalls, "but as a WPI undergraduate I had served as managing editor of the *Tech News*, a coeditor of *The Peddler*, and was a founder of the WPI chapter of Pi Delta Epsilon, the honorary journalism fraternity. I was also a student correspondent for the *Worcester Telegram*. After graduating with a BS in mechanical engineering, I joined Norton Company as a plant layout engineer. In 1949 the company set up a Public Relations Department, and I joined it. I was really fortunate in learning the profession under one of the finest people in our business, Elliott "Buz" Knowlton, whom I later succeeded as public relations manager."

In 1964 Roger was tapped by WPI President Harry Storke to be director of public relations at his Alma Mater, and Roger has held the position ever since. "General Storke had once been chief of information for the U.S. Army, and he thoroughly appreciated the public relations role in the organizational structure," adds Roger.

"1964 was an especially interesting year on campus," he recalls. "It was the year before the WPI Centennial celebration, and there was an incredible amount of activity. I was already on the Alumni Centennial Committee before I took up my WPI position. I nominated Mildred M. Tymeson to write WPI's centennial history, Two Towers, and helped plan the photo layouts for the book as a part of my PR duties. That centennial year in 1965 was a major challenge, not only for me, but for everyone connected with the celebration." For its centennial year activities, WPI won an award of exceptional achievement from the American College Public Relations Association.

That was only the first of many professional honors, tangible proof that others have judged him more than just good at what he does. Roger's program of support and publicity for WPI's five entries in the 1970 Clean Air Car Race earned the coveted Silver Anvil Award of the Public Relations Society of America (PRSA). "I particularly enjoyed providing PR support for this event," Roger remembers. "There was such a wonderful spirit of unity. Preparing for that race was a major undertaking, which the students carried off magnificently. That was just at the time the WPI Plan was taking final shape in faculty committees. Many alumni were concerned about the changes planned for the curriculum. The race proved that WPI students, with faculty support, could really handle the kind of projects that were being incorporated into the Plan. Also, the race generated a great deal of alumni support and enthusiasm at a very critical time."

ROGER PERRY has been active in promoting his views about his profession and in introducing others to it, and he has built up an impressive record of professional and community goodwill. In 1974 he passed the tough accreditation examinations of PRSA. Accreditation is the highest recognition of professional competence bestowed upon members of the Society. He is at present a regional director of PRSA.

He has played an active role in the Council for the Advancement and Support of Education (CASE). Following the merger of the American College Public Relations Association and the American Alumni Council into one organization, CASE, Roger stepped in to help smooth the transition and served as general chairman of the 1976 district conference. He is a founder and past president of both the Worcester County Public Relations Association and the Worcester County Editors' Council. Roger is an alumnus advisor to WPI's chapter of Theta Chi, a former director of the Better Business Bureau of Central New England, and a former director of the Girl Scout Council.

In September, Roger was elected president of the John Woodman Higgins Armory Museum following the defeat of a controversial proposal to merge the Armory into the Worcester Art Museum. A corporator (since 1976) and later trustee of the Armory, Roger was a staunch supporter of independence for the world-famous museum of armor. In the reorganization of the board of trustees, several new members were brought in to replace resigned trustee supporters of the merger. Roger Perry is the first president in the Armory's 50-year history who is not a member of the Higgins family.

A quiet man, Roger accomplishes more than many people realize. As a part of his public relations activities at WPI, particularly in the years under President Storke, he does occasional speech-writing. The one he remembers most vividly, however, dates all the way back to 1965. President Storke had been invited to be principal speaker at a Chamber of Commerce Education Night program. Storke wanted to use the opportunity to propose

that area colleges share the cost of establishing a computer center, a facility too expensive for WPI alone at that time but one which, Storke was sure, would soon be badly needed. He asked Roger for some help.

"Why not give them a ten-point plan?" suggested Roger. "There must be at least ten different areas in which local colleges could benefit by working together. Then, if we don't get their support on the computer center, we ought to be able to make some progress on the other points."

Storke's "ten-point" speech hit a responsive chord in the community, and the results were gratifying indeed. He got his computer center, and he also got the cooperative program now called the Worcester Consortium for Higher Education, which became a reality in 1967 as a result of his efforts.

PUBLICIZING WPI is an ongoing part of Roger's job, the part which most people think of as public relations. Roger works with newspaper editors and writers in Worcester and Boston, and makes trips to New York and Washington to try to generate more national publicity for the college in newspapers and magazines. Two years ago, Roger brought in a consulting firm of media representatives, Gehrung Associates, which augments his efforts in developing national stories. This arrangement has proved fruitful, with recent articles in *Business Week*, the *New York Times*, *Change* magazine, the inflight magazines of United Airlines and Air New England, and a nationwide Associated Press Sunday feature story on Audrey Muggleton-Harris's cloning research. Professor Harris was also featured on "Evening Magazine," a nightly television magazine show produced by Channel 4, Boston.

Throughout the year, he and Stephen D. Donahue, '29, news bureau manager since 1938, research, write, and distribute over 250 news releases a year, ranging from major WPI news stories for national distribution to hometown stories on new fraternity pledges. "My main job is to make WPI more widely known, and to let people know what our students and staff are accomplishing," notes Roger. "I also try to foster a friendly climate among WPI and other local colleges, and between WPI and the citizens of Worcester. We want people, including our immediate neighbors, to recognize WPI as the real asset to the community that it is."

THE DAY IS rarely dull for Roger Perry. His duties are many and varied. Much of his time is spent on the telephone, and, at times, one wonders if the receiver hasn't taken root in his ear.

Roger smiles at the thought. "I do get a lot of calls," he admits, "some from writers and editors, or perhaps from a professor requesting photographs to go with a paper he's about to publish." The grin on his face becomes broader. "I also seem to be first in line on campus to receive complaint letters and crank calls. If students play their stereos too loud at night, I'm the one the neighbors ring up first thing in the morning."

When he's not on the phone, you might see him discussing story possibilities with the Journal editor, editing *Monday Memo* (a weekly internal newsletter), writing or laying out the next issue of *Newsbriefs*, putting together an exhibit or booth that will help tell the WPI story at a fair or in a display window, showing a writer or reporter around the campus, or taking pictures. Indeed, many parents and alumni might best recognize Roger by the Nikon around his neck, standing on the sidelines at such events as homecoming, reunion, graduation, parents' day, and special events, like the recent Energy Expo, cosponsored with New England Electric, which brought over 13,000 people to campus in one day. He's there, helping make sure that things run smoothly for campus guests and visitors, and assisting members of the press.

As a part of efforts to publicize the college and the community, Roger is often asked to suggest people for awards, and he was especially pleased to have nominated Dean William R. Grogan, '46, who subsequently received the 1979 Worcester Engineering Society's Scientific Achievement Award.

ROGER PERRY saw active duty on the destroyer USS Furse in 1951-53 during the Korean Conflict. During World War II he had been an engineer in the U.S. Merchant Marine. He served in the U.S. Naval Reserve from 1949 to 1976, when he retired as a commander. Roger played an important part when his unit, a public affairs company based in Boston, won a Silver Anvil Award in 1972 for a program which brought young people from across the country to participate in the annual "turnaround" cruise of the USS Constitution. That same program won the Boston Publicity Club's first Super Bell Ringer Award and the Freedoms Foundation Award.

At his home in Holden, Roger has been busy for several years restoring a Model A Ford, "the same model I had as a student at WPI." His wife, Pauline, teaches biology at Wachusett Regional High School. They enjoy outdoor life and spend vacations traveling with their truck camper.

"When the children were younger, they used to join us," says Roger, "but now they're grown up and on their own." Son Dick graduated in June from WPI and is an industrial engineer at the Torrington Company in Connecticut. Tina, '77, is with the engineering department of the Town of Holden. Janet teaches physical education in the Northboro-Southboro schools. A year and a half ago their oldest daughter, Claudia, presented Roger and Pauline with their first grandchild, Benjamin.

AS HE LOOKS BACK over his 30-year public relations career in Worcester, he comments on the many changes over the years. "Back in 1949, when we started the department at Norton, there were only about five public relations people in all of Worcester County. Today there are over 100," Roger notes. "And when I became director of public relations at WPI in 1964, the college was so small that I also served as executive secretary of the WPI Society of Families, wrote a periodic newsletter for parents, produced the college's publications, and coordinated all special events. These last two posts are each a full-time position for someone else now. The college has grown considerably in 15 years."

WPI has certainly stretched its wings since 1964. The Consortium. The WPI Plan. Increased enrollment. Two new presidents. As public relations director, Roger Perry has helped publicize every aspect of campus change. Subtlely, but effectively, he has contributed to the coming of age of WPI.

UFO

FLYING SAUCERS. UFOs. Mysterious lights in the sky. Over the years they've been the butt of more bad jokes than almost anything except Jewish mothers. Then, two years ago, the movie "Close Encounters of the Third Kind" made them almost respectable.

And now Dr. Bruce S. Maccabee, '64, a civilian physicist specializing in optics at the U.S. Naval Surface Weapons Center, is one of the central figures in the interpretation of a remarkable series of UFO sightings last December in New Zealand. These sightings, described below, are the first extended UFO observation simultaneously by reliable eyewitnesses, photography, and both ground- and aircraft-based radar.

Maccabee recently appeared on ABC's "Good Morning America" show with Dr. J. Allan Hynek, former astronomical consultant to the Air Force's Project Blue Book and founder of the Center for UFO Studies. The two, together with Australian reporter Quentin Fogarty, an eyewitness, described the New Zealand events and discussed the findings of their personal investigations.

THINGS BEGAN at 3:28 in the morning of December 21, 1978, when Argosy captain Vern Powell, on a routine flight, encountered a UFO while climbing out of Blenheim Airport at the top of New Zealand's South Island. He had been directed there by air traffic controllers at Wellington Airport, located just across Cook's Strait on North Island. Radar men at Wellington had picked up several UFO targets on their screens, including one particular object — estimated to be as large as a commercial airliner — they tracked for 60 miles. After this, the object remained stationary until Powell arrived on the scene. Then, to everyone's amazement, the UFO began tracking Powell's aircraft down the coast for 12 miles.

When the news of the sighting reached Melbourne, television reporter Quentin Fogarty, then on holiday in New Zealand, was asked to cover the story. Fogarty arranged for a camera crew and a recreation of Powell's earlier flight. With a different crew than the earlier flight, Fogarty and crew left Blenheim on December 30 for Wellington, then for Christchurch. Just after midnight, they noticed a number of bright lights in the direction of the township of Kaikoura, located on the northeast coast of South Island. They immediately contacted Wellington radar, which confirmed unidentified targets in that direction.

The encounter had begun.

OVER THE NEXT 50 minutes or so, until the aircraft landed at Christchurch, those on board were treated to a spectacular and at times frightening UFO display. Some of the activity was filmed, but because of the objects' apparent ability to appear and disappear at will, filming was quite difficult.

At times, Wellington radar confirmed several UFOs behind the Argosy plane, and at one time a UFO target was so close to the Argosy that Wellington could not distinguish between the plane and the UFO. The passengers saw a flashing light. Reporter Fogarty, who taped a commentary throughout the flight, summed up the feelings of those on board when he said, "Let's hope they're friendly!"

Just before they landed, Captain Bill Startup invited the group back on the return trip. All accepted but one member of the camera crew who didn't want to fly back through the area of the sightings. A substitute was quickly found, and the return trip commenced at 2:16 a.m. About three minutes after takeoff, the plane broke through clouds and saw a very bright light ahead and to the right. Captain Startup, who compared it with a featureless full moon, turned on the airplane's radar in the mapping mode. Several minutes later, when the plane was about 15 nautical miles out of Christchurch, its radar detected a strong target some 20 miles away, in the direction of the bright light. When the plane came to within about 10 miles of the object, at an altitude of 13,000 feet, the pilot turned toward the object. But after a 90 degree turn, the object was still at the plane's side, apparently having moved as the plane turned.

The UFO kept its relative distance from the plane until Startup decided he had better get back on course. As he turned, the UFO moved to the front of the craft, to the left, and then sped away beneath the right-hand side and disappeared. From this point until landing at Blenheim, the people on board continued to see bright, pulsating lights, whose presence was also confirmed later by ground radar. One brightly flashing light was filmed; it showed a light oscillating rapidly from bright white or yellow-white to dim red and orange. The images caught by the camera show a shape that changes from nearly round, to sort of triangular, to bell-shaped, this latter having a bright bottom and a dimmer top. The plane landed at 3:15 a.m.

THE MELBOURNE television station, Channel O, asked the National Investigations Committee on Aerial Phenomena (NICAP) to investigate. Bruce Maccabee was chosen to go to New Zealand and Australia, where he spent three weeks interviewing witnesses and analyzing the film. "It didn't take long for me to realize that this sighting was something unusual," Maccabee says. He estimates that the brightness of the light was perhaps several hundred thousand candlepower. Assuming a distance of 10 miles, the object shown on the film would be about 40 feet wide. Maccabee also consulted with a number of other scientists.

Jack Acuff, president of NICAP, said his organization has never previously endorsed a UFO film as being genuine, but he says that the evidence in this case points to some new phenomenon that is probably related to other UFO reports. Dr. Hynek stated his opinion that the New Zealand evidence clearly suggests some phenomenon that cannot be explained in ordinary terms. He criticized those in responsible scientific positions who had publicly stated that the New Zealand film showed Venus, Jupiter, meteors, etc., without even bothering to talk to the witnesses, or to find out at what times and in which directions the various portions of the film were shot.

Maccabee, who has been a member of NICAP for twelve years, agrees with Hynek on one sure thing: they knew most of the things that the object could not be. They were able to rule out planets, stars, balloons, meteors, other aircraft, secret military maneuvers, radar "angels," and even the possibility of a hoax, and produced scientific evidence for these conclusions.

"All we know," Maccabee says, "is what it was not, but we are convinced that it's something real." He noted that UFO sightings of this type have been occurring since around 1947, "but we have had our heads in the sand — the ostrich effect." He believes that more should be done to investigate such phenomena and to keep the public informed.

1916

Secretary:
C. Leroy Storms
135 West 6th Ave
Roselle, NJ
07203

Wellen Colburn writes: "At 84 I still seem to be well and able bodied." His wife is not as healthy, "but we do fairly well."

1928

Secretaries:
Gifford T. Cook
Rt. 3 Box 294 Keyes Perry Acres
Harpers Ferry, WV
25425

Theodore J. Englund
70 Eastwood Rd.
Shrewsbury, MA
01545

Gordon Rice spends May to November in Ithaca, N.Y., and November to May in St. Petersburg, Florida.

1932

Emanuel Athanas spent August at his native Island of Rhodes in the Aegean, where he gathered material for a book on the Colossus of Rhodes. Before retirement, he was "Voice of America's" radio program director. Later, he became the Washington correspondent of the Athens News Agency and of the New York *National Herald.*

1934

Secretary:
Dwight J. Dwinell
Box 265
Brownington, VT
05860

Eugene Shumski, now retired, is doing consulting work for his former employer, Milton Bradley Co.

1935

Secretary:
Raymond F. Starrett
Continental Country Club
Box 104
Wildwood, FL
32785

Sam Ehrlich, who has a second career with his son, Richard, reports "progress with a new (second) plant in Austin, Texas and two retail furniture stores in Houston." According to Ehrlich, new designs in solid oak are selling well. The direction of their expansion is toward "knock-down" (K-D) furniture of top quality. They may have achieved a breakthrough with their knock-down designs. Sam says, "Still have plenty of time for golf."

Joseph Glasser, corporate vice president and manufacturing manager of Raytheon Company's Missile Systems Division and manager of the company's Andover-Lowell Manufacturing Operation, was honored at a retirement party in May marking his 34 years with Raytheon. Over 700 friends and colleagues attended the testimonial which was held in Andover, Mass. At the party he was toasted as "A real professional. A man who gets things done. A real people guy. A dynamic leader." During the evening he was presented with the Outstanding Civilian Service Medal from the Department of the Army, and a membership in the Haverhill Country Club from a Raytheon executive. Glasser was named a vice president of the company in 1971. He had also served as manager of the Waltham manufacturing facility. A graduate of the Raytheon Advanced Management Program, he also has received an honorary doctor of science degree from Lowell University, and the Goddard Award from WPI. He is a WPI trustee, a trustee of Bon Secours Hospital and Lawrence Savings Bank, as well as a director of the Boys Club of Greater Lawrence.

1936

Secretary:
Harold F. Henrickson
1406 Fox Hill Dr.
Sun City Center, FL
33570

After 38 years with The Foxboro Company, **Herbert Neuman** has retired and is living on Cape Cod. He writes, "**H. Foster McRell, Jr.** is a fellow resident of Harwich."

1938

Secretary:
Emory K. Rogers
141 Lanyon Dr.
Cheshire, CT
06410

Dr. **Gilbert Ashwell** was recently elected to the National Academy of Sciences. He holds the post of chief of the biochemistry laboratory at the National Institute of Arthritis in Bethesda, Maryland. . . . **Richard Cloues** continues on assignment in the Middle East as a resident engineer for Overseas Bechtel, Inc. He says, "We are consultants and construction managers for the Dubai International Airport expansion program on behalf of the government of Dubai, UAE. In January he attained life membership in the ASCE. . . . **Allen Gridley, Jr.,** former director of communications at Revere Copper & Brass, Rome, N.Y., retired early due to poor eyesight, moved to Texas last year, then back to New York. He declares, "Life is interesting."

1939

Secretary:
Charles H. Amidon, Jr
636 Salisbury St.
Holden, MA
01520

Walter Abel, who received WPI's Robert H. Goddard Award in 1970, reports that his most recent activity has been teaching junior high students what business is all about under "Project Business." Following graduation he joined the Research Division of USM Corp. During World War II, he managed a project concerned with the first rocket-propelled aerial torpedoes. In 1969 he was named vice president for research and development. He attended the Program for Senior Executives at MIT and later became a member of the Visiting Committee for Mechanical Engineering and a member of the Industrial Advisory Committee for the Polymer Processing Program and the Manufacturing and Productivity Department at MIT. The University of Hartford has tapped him for its Industrial Advisory Committee. He has been chairman of the Boston Research Directors Club, a member of Industrial Research Club of New York City, and USM's representative to the Industrial Research Institute, of which he became president in 1972. He has served as chairman of the Finance & Advisory Committee in Wenham, Mass.

"Charlie" Amidon writes that he's "spending the waning years in plant layout and renovation with occasional lapses into girl watching." In World War II he reveals that he developed draftsman's elbow over clocks, railroad cars, and machine tools, then "elbowed" into textile machinery. Business took him below the Mason-Dixon

Line, then to Japan and Europe. His wife Eva has been a teacher and author. Two sons and a daughter started out in teaching and Bill is in Turkey and Doug is a wood carver. The Amidons have several grandchildren. Charlie is a student of the American circus and likes to rediscover its early history and equipment.

Roland Anderson is working on part II of *The Kings Spawn,* a history of his father's family written by his mother in Sweden. During his career, he has been with the U.S.A.F., Counter Intelligence, Westinghouse, GE, Chrysler, and AMF on Titan I ICBM launchers. After service at NASA, he spent 12 years as a manager in the Advanced Systems Lab. at TARADCOM. He holds a patent on a "surface effect vehicle" and has others pending, including one on the inertial battery (IB) — "Over five times better than a chemical battery." He has set up the Magnatrans Corp. to handle possible federal funding for the IB development. His brother, Lennart, '46 has filed for a patent on an RF pulsed DC propulsion system which the IB power pack will make practical. Some years ago Roland Anderson hosted the "Best of the Best" at the Scarab Club on the "Bud Lanker (TV) Show." Hobbies include photography, reading, model-making, dancing, and Packards. He has five children.

James Bartlett, Jr. is president and owner of Hydranautics, a California company specializing in heavy-load moving machinery and reverse-osmosis water-desalting systems. The firm has 100 employees and offices in Houston, London, Singapore, and Alkhobar. The Bartletts' oldest, Jim, 3rd, graduated from Berkeley and is publisher of three magazines, including *Politics Today,* and is president of the International Volley Ball League. Judy, who has a BS in nursing from the University of Hawaii, is now "learning the economics of California ranching." The youngest, Stephen, graduated from Northrup Institute and is manager of field service for Hydranautics Water Systems. Bartlett, who earlier in his career was with B.F. Sturtevant, The Trane Co., The Garrett Corp, and his own Cosmodyne Corporation, enjoys flying (became a pilot at 47), carpentry and water sports. He and Shirley are active elders in the Presbyterian Church and participate in Santa Barbara politics.

Growing myrtle, English ivy and pachysandra around his home in Cleveland Heights, Ohio is **R. V. Bergstrom's** "Main outdoor activity." He also belongs to the YMCA, where he swims a half a mile a day to keep fit. By the mid-1980's, after retirement, he plans to become a beachcomber at Vineyard Haven, Mass., where the family has a summer home. A graduate of Harvard Business School, he has been with Norton Co. over 35 years in grinding wheel sales and supervision, mostly in the Cleveland area. During the war years, he was at the U.S. Naval Gun Factory and was an instructor in ordnance at the Naval Ordnance School, Navy Yard, D.C. He and Roberta have four grown children, two of whom are married. Bergstrom is into the local "goings-on" in Cleveland Heights, and his family belongs to the Unitarian-Universalist Church of Shaker Heights.

After working briefly for Penn Water and Power Co., **Henry Blauvelt** joined Public Service Electric and Gas Co. in 1940 and is presently manager of operations. For 25 years he lived in North Plainfield, where he was president of Rotary, a member of the Board of Education and of the YMCA board, and belonged to the Carrier Clinic Long Range Planning Committee. The Blauvelts have three children and five grandchildren. Tennis and swimming are favorite pastimes.

Current activities of **Jack Boyd** include land and building management of his properties, sailing, mountain climbing, skiing, traveling, scuba diving, and guns. He is a 32nd degree Mason, a member of the Appalachian Mountain Club, and an officer in the National Ski Patrol. He has served in Hollis (N.H.) town affairs as a member of the budget committee, planning board, school board, school study committee, and as deputy fire chief, police commissioner, and owners' representative on the construction of three Hollis schools. A state representative for four years, he was also on Gov. Peterson's task force, governor's crime commission, and the executive board of the New Hampshire Council of Boy Scouts. In 1971, he sold Nashua Brass and retired. Earlier he had been with Saco-Lowell Shops and Colt Firearms. The Boyds have two sons, two daughters, and three grandchildren.

Donald Burness has been employed by Eastman Kodak for his entire career, except when he was earning his PhD from the University of Illinois. Since 1971 he has been senior research associate at Kodak in Rochester, N.Y. He has been involved in research related to photographic products (58 U.S. patents), laboratory planning, and safety. Burness hikes in the Rockies and likes kayaking. He plays tennis and is interested in carpentry, cabinetry, photography and gardening. He plans to retire soon to "spend full time taking care of problems with our recalcitrant Volkswagen Rabbit." He belongs to the Adirondack Mt. Club, Appalachian Mt. Club, Green Mt. Club, Sierra Club, ACS, and Sigma Xi. Helen and he have two sons and three grandchildren.

For a number of years, **Harrison Brown** was involved with the Skylab program. ("Don't blame me because it fell! I tried my darndest to convince NASA to install a reentry system.") While at the Marshall Space Flight Center in Huntsville, Ala., he became the sytems engineering manager for the medium powered flights of Ranger, Mariner, Voyager, and Echo. At the Army Missile Command he worked on the Talos and Mauler missile systems. He was with the Bureau of Ships in Washington, with the Navy at Mare Island, Calif., and New England Power, Providence. The Browns, who have a son (doctor) and daughter (math. teacher), and two grandsons recently returned from a trip to Spain, Portugal, and Tunisia. They are ardent square dancers and participate in retirement programs. Brown serves on the local Mental Health board and is chairman of the church board of trustees.

A former local WPI Alumni Chapter president, **John Busada,** has also served as president of the Flushing Lions Club and the Chamber of Commerce, chairman of the YMCA board, and trustee of Flushing Hospital. He was a vestryman, headed a local Red Cross drive, the annual YMCA Fund Drive, and was master of Damascus (Masonic) Lodge. Associated for many years with his own firm, Busada Mfg. Corp., which specializes in transparent rigid plastic tubing, he was formerly with Omni Products, Northern Industrial Chemical Co., the U.S. Navy, and GE. He has a daughter in the theater and a son doing graduate work in horticulture.

Since his retirement in 1973, **Wilder Carson** and his wife Ruth have spent much of the time traveling with their Airstream trailer to Prince Edward Island, Canada, in the summers and to Florida or the Southwest, winters. They have crisscrossed the U.S., Canada, and Mexico. From 1958 until his retirement, Carson served at the Army's Munitions Command in Dover, N.J., and received his second Meritorious Civilian Service Award. Previously, he was at Picatinny Arsenal in Dover, where he was employed for 33 years as a civilian engineer and manager, design and project engineer, and laboratory chief in ammunition R&D. For a short time before going to Dover, he was with GE. The Carsons have a daughter and two grandchildren. Hobbies include invertebrate fossil collecting, fishing, and reading. Carson is past president of the Morris County Engineers Club and an active participant for 15 years in the local Great Books discussion group.

Allan Chase spent about 36 years with Procter & Gamble, retiring in 1975 as plant chemical engineer in the food products plant in Cincinnati. He now lives in Chatham, Mass. The Chases have two daughters and a son, and try to get in one major trip a year. . . . **Arthur Cooley** retired as a senior engineer with Socony Vacuum Oil Co., East Providence, R.I. in 1975, when the asphalt plant closed. Earlier he worked for Anderson Engineering, Cambridge, and Lovejoy Tool Co., Springfield, Vt. In World War II he was with the Air Force in Tunisia, Sicily, and Italy on 50 missions and earned four oak leaf clusters. In 1944 he returned to the U.S. as an instructor and maintenance test pilot. He likes to do repairs, plumbing and auto mechanical work. His 1970 Cutlass has logged 128,000 miles and still gets 22 mpg on trips. He used to keep bees. Recently he completed a course in colored stone grading from the Gemological Institute of America. He enjoys skiing,

hiking, whitewater canoeing, and is Canoe Committee chairman and a member of the Appalachian Mountain Club. He is a past treasurer of his local scout troop and Junior Achievement advisor. He belongs to the Instrument Society of America and the American Institute of Plant Engineers, serving as president of the Rhode Island chapter in 1967. He is a professional engineer and the father of four.

Harold White has been named vice president and general manager of the newly created Organic Grinding Wheel Division at Norton Co., Worcester. The new organization will include the vitrified grinding wheel division and the diamond products division, as well as the organic grinding wheel division. White, a registered professional engineer, was previously vice president and managing director of abrasive operations in Northern Europe.

1940

Secretary:
Robert E. Dunklee, Jr
Rocky Hill Rd
North Scituate, RI
02857

Russell Lupien has retired as purchasing agent for George Meyer Co. in West Boylston, Mass.

1941

Secretary:
Russell W. Parks
7250 Brill Rd
Cincinnati, OH
45243

Robert Wilson continues with Field, Eddy and Buckley, Inc., an insurance agency in Springfield, Mass.

1942

Prof. **Roy Bourgault** of the WPI Mechanical Engineering Department has been elected chairman of the Materials Division of the American Society for Engineering Education.

1943

Robert Alexander holds the position of technical manager at Northern Petro Chemical in Clinton, Mass.

1944

Secretary:
John G. Underhill
6706 Barkworth Dr
Dallas, TX
75248

Joseph Gibson, Jr., inventor of the Thermosol dyeing process used extensively throughout the world, has been named the 1979 recipient of The Olney Medal for achievement in the textile industry. Established in 1944 by the American Association of Textile Chemists and Colorists, the medal recognizes outstanding achievement in textile chemistry or other areas of textile science. The award consists of a gold medal, a scroll, and a cash honorarium. Gibson, who did graduate work at Princeton and MIT, has spent his entire professional career at du Pont in Wilmington, Delaware, where he is currently a senior research engineer in textile end-use research. During World War II he was in the Naval Reserve.

His accomplishments as a researcher encompass different fields. Besides the Thermosol continuous dyeing process, he has been involved in the development of more comfortable wearing apparel and the development of synthetic leathers. He developed a sparkling monofilament textile fiber which provided luxurious fabrics with glistening appearance, and nylon hosiery with improved fit, sheerness and durability. He holds patents or has written and presented papers in these fields. Outside of his profession, he has been granted a patent on a fish swimway for an aquarium tank; has developed a general theory on the origin of the universe leading up the "big bang" theory; and presented a paper on this theory in the 1978 Louis Jacot Competition in Paris. He belongs to AATCC, ACS, the Fiber Society, Sigma Xi, Tau Beta Pi, and Sigma Phi Epsilon. He served on the National Association of Hosiery Manufacturers' Pantyhose Sizing Committee, and is the 36th recipient of The Olney Medal, slated to be presented during October at AATCC's annual national technical conference in Cherry Hill, N.J.

Everett Johnson has moved from being manager of planning and administration to manager of The Beacon Research Laboratories of Texaco, Inc. in Beacon, N.Y.

1945

Prof. **John Fondahl** of Stanford University has returned from a spring quarter sabbatical. He and his wife Doris spent three weeks in China, then six weeks with the youngest of their four daughters at Kyoto University in Japan. . . . **Albert Myers** was recently elected vice president of furniture operations at Lear Siegler, Inc. Previously, he was vice president of operations for fabricated products. Reporting to him are Borroughs Division, Foam Products Division, National Twist Drill and Tool Division, No Sag Spring Division, and Plastics Division. He is located in Rochester, Michigan.

1946

Secretaries:
M. Daniel Lacedonia
106 Ridge Rd.
East Longmeadow, MA
01028

George H. Conley, Jr.
213 Stevens Dr
Pittsburgh, PA
15236

Paul Gorman, group vice president at Chas. T. Main, Inc., Boston, has been elected to the board of directors of the corporation. Elected a group vice president in 1978, Gorman is responsible for Chas. T. Main's engineering divisions. In 1975, he joined Main as vice president and manager of the Nuclear Division with subsequent responsibilities as manager of the Thermal-Nuclear Division. Earlier, he had been a vice president for Boston Power Division at United Engineers and Constructors, Inc., and a director of Jackson & Moreland International, where he was employed for nearly thirty years, He holds an MS from Northeastern.

Dean **William Grogan** has been awarded the Carlson Award from the American Society for Engineering Education for his major role in the development of the WPI Plan.

1947

Secretary:
Alfred F. Larkin, Jr
1440 E. Standish Pl.
Milwaukee, WI
53217

Dr. **Morrel Cohen** has completed six months leave at Kyoto University, which he found "most pleasant and stimulating." . . . **Milford VanDusen** is presently an engineering staff consultant at Loral Electronic Systems, Yonkers, N.Y. Earlier he had been with AIL Division, Cutler Hammer, Eaton Corp. . . . In a recent management reorganization at the Torrington Co., **John Williams, Jr.,** was named vice president of finance and administration. Previously, he was vice president of the heavy bearings division. Since joining the firm in 1947, he has served as district sales manager and general manager of the heavy bearings plant at South Bend, Ind. In 1972 he became vice president of heavy bearings, and in 1975, director. Last year he moved from South Bend to corporate headquarters in Torrington, Conn.

1948

Secretary
Paul E. Evans
69 Clairmont St
Longmeadow, MA
01106

Gordon Keller has retired from AVCO's Systems Division.

1949

Secretary
Howard J. Green
1 Kenilworth Rd.
Worcester, MA
01602

James Adams has traveled to Japan, Taiwan, Hong Kong and often to Greece and other parts of Europe during his career as vice president of marketing for the General Instrument Corporation. He is a member of the board of directors for two companies on Long Island and a member of the Long Island Association and Long Island Forum for Technology. He also serves as chairman for local scouting groups, board chairman for a high school scholarship committee, and is involved in church activities. His three sons, Bob, Jim, and John, will all be in college this fall. The Adamses reside in Glen Cove, N.Y.

Since 1952, **Walter Allen, Jr.** has been with Pratt & Whitney Aircraft, East Hartford, Conn. His various posts have included manager of the Texas office and manager of domestic marketing for the central U.S. and Canada. In 1974 he became regional director of Pacific and Australasia. "Have made 11 trips around the world in this job." Currently he is assistant to the vice president of international marketing. He flies in his Mooney Executive, sky dives (215 jumps), and skis. . . . **Dean Amidon,** the new commissioner of the Massachusetts Department of Public Works, says he lives "part time in Boston and the rest in the Berkshires." Fran and he have four grandchildren and three daughters-in-law. He's had to give up his golf membership in order to concentrate on his latest professional responsibilities.

Willson Applegate's son, Lansing, just finished his junior year at WPI. Daughter Marcia works for United Airlines, and Nancy is about to enter Sacramento State University. Wife Nikki does volunteer work in churches and hospitals and holds seminars in colleges. Applegate holds the post of corporate director of ground safety for United Airlines. Earlier he had been an industrial hygiene engineer in Vermont and a safety engineer for Boeing. He holds a master's degree in industrial hygiene from Harvard, and sings in the church choir. He has been a leader in the Air Transport Section of the National Safety Council, the American Society of Safety Engineers, and the American Industrial Hygiene Association.

Philip Buffinton is a director of State Farm Fire and Casualty Co., Bloomington, Ill., where he also holds the posts of vice president, secretary, and chief administrative officer. He was a founder of the former National Flood Insurers Association, and presently belongs to the National Fire Protection Association, Seismological Society of America, American Meteorological Society, and the American Management Association. He is an associate in the Casualty Actuarial Society, a member of the American Academy of Actuaries, and a registered professional engineer. He and Rita enjoy golfing here and abroad. They have three married daughters and a grandson.

Thomas Carlin serves as manager of general purchases in the Eastern Division at Wyman Gordon Co. He is a national certified purchasing manager, a registered professional engineer, and holds an MBA from BU. He belongs to ASME and the National Association of Purchasing Management. A director of the Worcester chapter of NAPM, he is also a member of the Rotary and the Westboro High School Building Committee. The Carlins have fosr children, and like golf, tennis and skiing. . . . **Thomas Coonan III** continues with Plastic Products and Resin, a department of du Pont. He's been with the firm 27 years and is presently a senior marketing assistant in Chicago. He has two boys and a girl in high school and enjoys golf and Canadian fishing.

With the Foxboro Company for nearly 29 years, **Earl Cruff** is currently manager of project services for D&E. Son Carlton received his BS from WPI in 1971, his MS in 1973, and is employed by Pratt & Whitney. His daughter, Patti, graduated from Wheaton. Earl and Glenna usually take an annual trip to California to see Patti and her husband. . . . **Walter Dick** is still at Bell Telephone of Pennsylvania, where he is the design engineer for cable, microwave, and lightwave communications systems in the western part of the state. . . . **Len Fish** continues in the post of senior vice president at the American Gas Association. He is responsible for technology development, training, meeting services, membership development and international liasion, which gives Bobbie and him the chance to travel throughout the U.S.A. and Europe.

Since 1954 **Orlando Foss, Jr.,** has served as president of the General Box Company of Waycross, Ga. The company makes cigar, school, and shoe boxes by its patented method, on equipment which is mostly of its own design. Foss and Colleen have two children, two step-children, and one step-grandson. He is an elder in the Presbyterian Church, is past president of the Rotary Club and the Chamber of Commerce. He is on the advisory board of the Southern Division of the National Paper Box Association, and is past director of the Associated Industries of Georgia. . . . **Samuel Franc, Jr.** of Alamo, Calif. is a project manager for Raiser Construction Co., a design-build firm. At the moment, the company is working on three office buildings, a condominium project, a high rise building, and is about to start on another office building. On the boards: A 17-story hotel for Holiday Inns and a regional headquarters for Fluor. Franc is president of Danville Toastmasters, an organic gardener, a photographer, a real estate broker, and a "new runner." Marcia graduated from high school this year, and her sister, Susan, is a sophomore with a 4.0 average. Franc's wife Betty collects books.

Charles Gerber has retired (except for teaching) as senior project engineer from Mitchell College, New London, Conn. He is a consultant to the College and to the Town of Old Lyme. He is associated with the Salvation Army, Senior Citizens, and many personal projects. Vi and he spent several days last winter with the widow of his cousin and classmate, Karl Berggren. . . . **Howard Green** continues as treasurer of Green Bros. of Worcester, Inc. His firm is active in the new and used machine tool business in the U.S. and is expanding internationally. Recently a large addition was built. Green is on the national board of directors of the Machinery Dealers Association, which is based in Washington, D.C. His hobbies are golf and tennis. His political activities are "confined to trying to alleviate the product liability problems in the U.S." He has four children.

Alfred Hapgood has spent 24 years in lens manufacturing, including 12 as lens plant manager and one year as lens product manager at American Optical Co., Southbridge, Mass. He has been chairman of the Southbridge School Building Committee for five years, a member of the Cohasse Country Club board of directors for six years, and club president for one year. When his two sons were young, he assisted with Little League and Pee Wee Hockey. He and his wife "vacation as often as possible," with Hapgood enjoying athletics and fishing. . . . Since 1971 **John Hunter** has been engineering director at General Dynamics-Electric Boat. He says, "We have about 1100 engineers and 1700 draftsmen and workers, who are well into converting to computer-assisted plan production. We already handle all material ordering and listing this way. The Trident (submarine) requires about 13,500 plans and 200,000 pieces of materials to build one ship." Hunter is a former mayor of Groton, Conn., a senior warden in the Episcopal Church; a licensed lay reader; a U.S.C. G. licensed operator of small passenger ships; a professional engineer; and a member of the Society of Naval Architects and Marine Engineers, and the Newcomen Society. He is part-time captain of the last U.S. coal-fired passenger ship out of Mystic, Conn. He has three grown children.

Bill Julian, past president of the WPI Alumni Association and a resident of Mclean, Va., writes that he expects he and his wife Audrey will be spending about six months of the year at their new vacation home at Willoughby Lake in Vermont. They enjoy sailing and are avid bridge players. Carol Ann is a special education

teacher; Debra, an environmental scientist; and Allen, a senior at the University of Virginia. . . . **Peter Kahn** serves as a manufacturers' agent for chemical processing equipment, along with equipment for air pollution and liquid wastes treatment and control. His firm, Peter A. Kahn and Co., is located in Newton, Mass. His daughter, Merle, who has a PhD in food chemistry, works for Reynolds Metal. Eric is a marketing zone manager for Lincoln-Mercury Division of Ford, out of the Denver office.

Robert Lawrence has been with the U.S. Department of Commerce for 30 years and is presently involved with the development of novel optical techniques for measuring the physical properties of the atmosphere. "How about a volume-averaging wind sensor that sits in a small box on your desk and gets its information by simply looking out of the window?" For fifteen years he and Pam have flown their plane on business and pleasure trips to Glacier Bay, Newfoundland, and the Peruvian Andes. They flew to Worcester for his 25th reunion. Viki is a geologist and Vernon is a math student at the University of Idaho. . . . **Sidney Madwed,** who served this year as a head agent for the class, writes that he swims five miles a week. He has been involved with scouting, his synagogue, and is interested in photography. His firm, Madwed Manufacturing Co., Bridgeport, Conn., specializes in zinc die casting, antique plating, and brass plating, light steel fabrication, and electropolishing. Son Bert is with Westinghouse in Pittsburgh. Susan works as an assistant fashion designer at Parade Dress Co., New York City. Mark is at Northeastern and Sarah is a high school junior.

Harold Melden, Jr. has been named vice president of gas supply at Commonwealth Gas Co. On a recent trip to Alaska and the Yukon Territory, he saw his oldest son, Mark. Kurk, with a BSEE degree from Union College, is at Data General. Daughter Sue is a student at the University of Maine. His wife June plays and teaches tennis. . . . **Robert Miller, Jr.** is employed by Gilbert-Commonwealth of Jackson, Mich. Currently he is project manager assigned to Montreal working in tandem with a Canadian consulting company. The project involves the electrification of the central region of Saudi Arabia. . . . Since graduation **Harry Mochon, Jr.,** has been associated with electric utilities, including Hartford Electric Light Co. and the Connecticut Valley Power Exchange. Presently he is director of the New England Power Exchange. He has two daughters, one a lawyer in California and the other a social worker in Massachusetts. Mochon has served as chairman of the North American Power Systems Interconnection Committee. A registered professional engineer, he also belongs to the Technical Advisory Committee of the National Electric Reliability Council. He is an avid golfer.

Henry Mogensen holds the post of manager of the Lapmaster Division (Machine Tool) of Crane Packing Co. in Chicago. Last September he left Warner & Swasey Grinding Machine after more than 27 years of service. . . . Still with Feecon Corp., Westboro, Mass., **Walter Mussoni** now serves as general sales manager of the company. The firm manufactures and designs fire suppression systems for airports, refineries, and municipalities. He and Janice have two boys and two girls. "Golf has to be my primary hobby." . . . **John Snyder** has joined Pepsi-Cola Co. in Philadelphia, where he is manager of packaging research.

1950

Secretary
Lester J. Reynolds, Jr.
15 Cherry Lane
Basking Ridge, NJ
07920

Robert Hallisey serves as engineering supervisor of the test equipment department at Hughes Aircraft Co. in Fullerton, Calif. . . . **David Humphrey** is a self-employed manufacturers' representative "living on a farm in beautiful Carroll County" in Maryland. He is currently restoring a 1927 American LaFrance pumper. He sees duty as a maintenance officer and pilot for the Civil Air Patrol.

1954

Secretary
Roger R. Osell
18 Eliot Rd
Lexington, MA
02173

Paul Alasso holds the post of product manager for textile coating and bonding polyurethane products for a division of Mobay Chemical Corp. Prior to joining the company in 1976, he had been with Midland-Dexter, Trancoa Chemical, Permuthane Division of Beatrice Foods and Union Carbide. The Alassos live in Medfield, Mass., and have two children, Sarah, 13, and Andrew, 11. . . . "Thirteen years in the Maine woods with the B & A (Bangor & Aroostook Railroad) have been very rewarding ones," writes **Owen Allen,** who works for the mechanical department. Earlier he had been employed by Union Carbide, New York Central Railroad, and Foster Wheeler Corp. He holds a bachelor of divinity degree from the Drew University Theological School, and once served as a co-pastor of a circuit of four Methodist churches in Massachusetts. He has hiked the 2000-mile length of the Appalachian Trail, the story appearing as part of a two-volume book, *Hiking the Appalachian Trail.* Owen and Candy have three children.

David Bisson's current principal activity is Frederick Beck Originals, a former customer, which he purchased. The firm produces a fine line of design Christmas cards which are sold in the finest stores. Bisson is still chairman, but is in the process of selling his silk screen printing company, which developed into the largest screen printing business in the San Francisco area. For ten years he had been a sales engineer in San Francisco for Union Carbide Plastics. Earlier he did food research in Chicago. Active in church and city politics, Bisson also reads extensively, skis, and camps out. The two older children are business majors at Berkeley and the youngest is in high school. The family resides in Millbrae, Calif. . . . In January, **W. Richard Byrnes** joined Goldsmith & Eggleton of Akron, Ohio. He is brokering plastic resins and compounds as well as representing two other manufacturers. Previous employers were Air Products & Chemicals, Inc., J. T. Baker Chemical Co.; and Arthur D. Little, Inc., Cambridge, Mass., where he worked with Wil Kranich and **Roger Osell.** He has belonged to the Lions Club, Jaycees, Toastmasters International and church organizations. Other interests are the music theater, scouting and children's athletics. Byrnes and Bette have three children.

Lee Catineau says, "Life has been good to us." His leisure-time interests have been geared to working with kids in baseball, hockey, football and those with problems. The Catineaus have two boys: Ted, 19, and Don, 18. Lee is presently a broker with Loeb Rhoades, Hornblower, Inc. in Worcester. He has previously been with Bache, du Pont, and the Atomic Energy Commission. . . . **Harry Chapell** of Maynard, Mass. is a past president of the Lions Club, former Civil Defense radio officer, chairman of the high school building committee, and has been chairman of the Conservation Commission since its formation. He is the chief engineer at Sage Labs, after having worked for Raytheon and Bell Labs. At Sage he is concerned with the designing of microwave components and instruments. He helped develop the lunar lander, has several patents, and has written technical papers. The Chapells have two daughters, a son, Robert, '78, and two granddaughters.

Recently, **Elmer L. Corujo** was appointed director of Latin America sales for Harris Corporation. He joined the firm two years ago. Previously, he was in management and international sales with Raytheon and RCA. . . . Last year **Allan Costantin** resigned from Union Carbide to become vice president of Gibson Associates in Cranford, N.J. The company manufactures over one billion thermoplastic closures each year for major soap, toiletries, cosmetics, food, and liquor companies. With the exception of his service in the Medical Service Corps., Costantin had been with Union Carbide since graduation. In 1958 he and **Dave Bisson**

"covered the Northwest" for the firm's Plastics Division. He became the sole plastics representative in Texas, Oklahoma, and Arkansas. In 1965 he was appointed group leader in the R&D department in Bound Brook, N.J. and dealt with P.V.C. In 1973 he was named sales manager of the eastern region. He has an MBA from Rutgers. The family, including six children, enjoys skiing and sailing. . . . A long-time employee of GE, **Kenneth Cross** writes: "We have developed, installed and operated (for the Air Force) large radars for BMEWS and for tracking satellites, including many based overseas in Turkey, Thailand, and Alaska." His most interesting experience has been as a project engineer on an experimental infrared program which took him to Mississippi, Vandenberg AFB, Calif., and Cape Canaveral. The Crosses and "two very wonderful adopted children" reside in Baldwinsville, N.Y.

Still with Scovill Mfg. Co., Apparel Fastener Division, **Walter Dziura** now holds the post of manager of contract engineering and has five patents. He is the father of six, one son currently attending WPI. For many years he was a Boy Scout committee man. He is active in hunting, fishing, and conservation work at the Rod & Gun Club. He teaches grafting as an aid to wildlife. A member of ASME, he is also a certified engineer and a Junior Achievement advisor. . . . During the last 22 years with U.S. Steel, **Robert Fish** has been concerned with the engineering of products and applications of wire rope and structural steel strand from all production and commercial aspects. His career has taken him hundreds of thousands of miles in the southern and eastern U.S. and on occasional foreign expeditions to China, Australia, and South America. Earlier, he worked for the Massachusetts and Connecticut State Highway Departments and the Army Corps of Engineers. The Fishers have five children, "all Yankee-born, and now all dedicated Southern rebels!" They live outside of Birmingham, Alabama.

Joe Fratino began at Columbia Gas Transmission Corp. in 1954 and is now director of engineer services in Charleston, W. Va. He is a registered engineer and is involved with the ASME, API, and AGA. For a number of years he belonged to the Optimist International. He also coached young people's basketball and baseball teams. The Fratinos' daughter Lori is married and attending Ohio State University; Maria is planning to attend Marshall College; and Michele is 13. . . . Continuing with du Pont, **David Gilbert** now serves as plant manager for the firm in Antioch, Calif. He had been assistant plant manager at du Pont's largest chemical plant in New Jersey. He has participated in the PTA, scouting, and local politics. He and Fran are the parents of Lesley, a graduate of West Chester (Pa.) State College; Dave, Jr., a student at Diablo Valley College; and Betsy, also a Diablo student in California. In his "older years" Gilbert has given up basketball and has switched to tennis and skiing. . . . Dr. **Richard E. Gilbert** flies and runs, but says he is "not much good at either." He teaches at the University of Nebraska, is married, and has five children.

John Herz is currently active in the venture field handling corporate reorganizations and business development assignments for private firms. He had been vice president of marketing at Siemens Corp./U.S., and was associated with North American Philips, and Veeco Instruments, Inc. For years he was in the electronics field handling sales, marketing, and corporate planning and development which included assignments in Europe, the USSR, and the Near and Far East. Earlier, he spent eight years in mechanical engineering. He has an MBA from NYU. He, wife Ilse, and three children reside in Stamford, Conn. . . . **Bill Hills'** firm, Hills' Research and Development, Inc., Melbourne, Fla., continues as a manufacturer of complete machinery systems for synthetic fiber extrusion. A member of ASME, Hills also holds about 25 U.S. patents. During his career he was with Chemstrand Corp., now merged into Monsanto, until starting his own business in 1971. He headed the development of a number of fabrics and fibers while with Monsanto. Bill and his wife have two sons.

Since 1977, **Mel Holmgren** has been self employed with Sitka Electronics Lab., marine electronics service and sales, in Sitka, Alaska. He has also been employed by the Geophysical Institute of the University of Alaska, FAA of Anchorage, and Collins Radio Co., Cedar Rapids, Iowa. He attended Bethel Theological Seminary and was involved with the Missionary Communication Service. He enjoys hunting, fishing, boating, housebuilding, church activities, and ham radio. The Holmgrens have seven children. . . . **Adrian Horovitz,** vice president of Harwood Mfg. Co., Providence, R.I., is president of Temple Sinai in Cranston, R.I. He has served as president of the Hamilton Sinai Bowling League and as vice president of the Rhode Island Jewish Bowling Congress for two years. Horovitz and Deborah have two children, Amy, 19, and Jeffrey, 16. . . . **David Hoyle's** career has been in the field of instrumentation with major emphasis on applied control system design. He is chief instrument engineer for an engineering contracting firm in Boston, and has published several papers on control system design. The Hoyles have one child out of college; three in college; and a 10-year-old at home. Restoration of a 200-year-old house keeps Hoyle busy.

The main hobby for **George Idlis** is swimming, a daily activity. He is a swim meet official and officiates at the high school and college level in AAU competition. He works for Storti Associates of Warwick, R.I., as a management consultant specializing in management recruiting, "A career change I found both stimulating, challenging, and rewarding." He had been with Bethlehem Steel Co., Shipbuilding Division, and several other companies. His children are Bonnie, Amy, and Michael. He is a past PTA president and officer in his Temple. . . . At last count, **Ted Jaros** had visited 32 countries concerning prospects for sales, marketing contracts, licensing agreements, joint ventures, or wholly owned foreign investment. Currently, he is vice president and director of strategic marketing for the Semiconductor Group of Motorola, Inc. Other employers have been Texas Instruments and GE. Daughter Susan is in her last year of law school; Joe is at Loyola Marymount; and Andy is a junior in high school. Jaros' wife Helen is a branch manager for Southwest Savings & Loan Corp., Phoenix, and has an MBA from Arizona State University.

D. Alden Johnson of Sturbridge, Mass., vice president of Montgomery Co., Inc. is also owner of Hickory Ridge Country Club. Formerly, he was employed by IBM, by Hornblower & Weeks, Hemphill Noyes, and by American Optical Co. He is a director of the Massachusetts Flower Growers Association, a corporator of Nonotuck Savings Bank, president of Sturbridge Basketball League, and is active in church affairs, and coaching basketball and baseball. He likes golf and skiing and has an MBA from AIC. He and wife Pat are the parents of Paul, 15, and Karl, 14. . . . Presently, **Jaak Jurison** holds the post of manager of Digital Systems. While with what is now Rockwell International, he designed and directed the development of several digital computers for avionics and space systems. He was associated with Sperry Gyroscope Co., and IBM's Watson Laboratories. He has an MSEE from Columbia. For two years he served in the U.S. Army Signal Corps. He is interested in computer architecture, microprocessors and fault tolerant computer systems, and has lectured on avionics computers at U.C.L.A. The Jurisons enjoy Southern California living: "Beaches. Sailing. Tennis."

1957

Secretary:
Dr. Robert A. Yates
11 Oak Ridge Dr
Bethany, CT
06525

Alex Papianou's daughter is a freshman electrical engineering major at WPI. . . . Formerly the operations manager of Sprague Electric Company's filter division in North Adams, Mass., **Robert Purple** was recently named general manager of Sprague's thick-film circuit operations in Nashua, N.H. In 1958 he joined the firm as a radio interference filter engineer in Ohio. Since then, he has held various engineering, project manager, plant manager, and marketing posts in the division.

IF YOU EVER need to inspect the interior of a beaver hut, call Donald A. Carignan, MS '59. He can help you out. He once helped the U.S. Department of Interior peek into beaver huts to take a population count.

Carignan is the president of Instrument Technology, Inc. (ITI), Westfield, Mass., an engineering company specializing in the design, development, and manufacture of remote viewing instruments and systems. His firm designed a portable boroscope with illumination to assist U.S. park rangers in their beaver census.

ITI, started in 1973 by Carignan, manufactures periscopes, telescopes, borescopes, fiber optic systems, and closed-circuit TV systems. "Our remote viewing instruments permit the viewing, inspection, or photographing of inaccessible objects or objects located in a hostile environment," he explains. Applications for the instruments include viewing into high radiation areas, looking underwater, and viewing into high and low temperature, highly toxic, or explosive environments, and into inaccessible areas.

Prior to founding his company, Carignan was an engineering manager at American Optical Company, Southbridge, Mass., and later a senior engineer at Kollmorgen Corp., Northampton, Mass. Since 1973, ITI, which deals primarily with quality assurance engineers and provides them with instruments necessary for visual inspection, has grown from five to twenty employees. In 1980, sales are expected to reach $1 million. Carignan remains the optical systems engineer for the company, and he is personally responsible for development of all systems.

A large portion of ITI's business is with the nuclear industry, which relies rather extensively on remote viewing systems for operation and inspection. ITI is currently the major manufacturer of optical systems for the U.S. and Canadian nuclear industry, and manufactures several items for export. ITI remote viewing systems are presently in use in Japan, India, Pakistan, the Republic of China, and in several European countries.

The company is also involved in the breeder reactor program with Westinghouse, and it has supplied the special periscopes for the test reactor (FFTF) at Hanford, Washington. Knowledge gained in the design of periscopes for the FFTF will be used in the first commercial breeder reactor at Clinch River, Tennessee.

The future growth of the company, however, may be in its new borescope instrument line due for release in January 1980. Boroscopes are long, small-diameter optical instruments used for looking into inaccessible areas. The airlines and aircraft industries rely heavily on boroscopes for internal inspection of jet turbine engines. Under a development contract funded by United Airlines in 1977, ITI developed a special jet engine borescope which is now in use at all United Airlines service centers. Other airlines are now purchasing ITI borescopes because of the experience gained by United. ITI was recently selected by General Electric and the U.S. Navy to supply borescopes for the Navy's new F-18 Hornet aircraft.

Besides serving as president of ITI, Don Carignan has other professional interests. He serves as a consultant to Prineeton University for the desing of remote viewing systems for the Tokamak fusion reactor. In November he traveled to Vienna, Austria, to meet with representatives of the International Atomic Energy Agency (IAEA) to assist in the development of international safeguard inspeetion systems. He is a member of the Amerlean Nuclear Society and eurrent ehairman of Sub Group 11.5, whieh is responsible for setting standards for remote viewing optical instruments. He is also a member of the Amerlean Soeiety for Non-Destructive Testing, Ine.

Don lives with his wife Jan in Westfied. His oldest daughter, Dawn, is married and living in Vermont. His three other ehildren — Greg, 21; Jeff, 20; and Pamela, 18 — are all engineering students at Southeastern Massachusetts University. "If any one of them wishes to pursue graduate work in engineering, I'd like them to attend WPI." In the meantime, the boys work for ITI during vacations and have learned to operate every lathe and milling maehine in the shop. For the last two years they have worked on the drawing boards. "It would be niee to have them join me, but I'm not pushing it." Pam wants to eombine engineering and arehiteeture.

Because of his engineering baekground, Don was appointed to the Westfield High School Building Committee in 1970, and he takes pride in the new school. It took almost six years to build: four years to get voter approval, and two years for eonstruction. Don belonged to Rotary for two years, but, because of his extensive traveling, he reluetantly submitted his resignation.

For relaxation, Carignan is involved in studying World War II in the Pacifie, and his colleetion of books on the subject is growing steadily. His favorite means of relaxation, however, is sailing. He charters a 22-foot boat and sails out of Westbrook, Conn.

1958

Secretary:
Harry R Rydstrom
132 Sugartown Rd
Devon, PA
19333

Joseph Gill has been elected a school committee member in Southboro, Mass., filling a vacancy caused by a resignation. He has a master's degree in business administration from the Wharton School at the University of Pennsylvania, and is a member of the advisory committee created to review the schools' progress in the state-mandated basic skills program. He is the president and owner of Vee-Arc Corp., a manufacturer of electric motor drives. The Gills have five children.

1959

Secretary:
Dr Frederick H. Lutze, Jr
110 Camelot Court NW
Blacksburg, VA
24060

Continuing with du Pont, **F. William Farnsworth** is now plant superintendent in Victoria, Texas. . . . **Lawrence Lavallee,** a senior engineer with RCA, is on a radar field assignment at Kwajalein Missile Range in the Marshall Islands. . . . **Philip Peirce** holds the post of quality control manager of the Worcester Group at Wright Machine. . . . In June **Joseph Prindle** completed 20 years of service with West Penn Power Company and became a member of the firm's Veterans' Association. He is division planning engineer at Keystone Division headquarters near St. Mary's, Pa. In 1959 he joined West Penn as a cadet engineer at the Greensburg general office. He became district planning engineer at Butler in 1960, transferring to Ridgway then St. Mary's the following year. In 1964 he was promoted to division planning engineer. He belongs to the Elks and the American Legion.

1960

Secretary:
Paul W Bayliss
170 Wyngate Dr
Barrington, IL
60010

Shepard Brodie is employed as sales manager at Control Signal Corp., Denver, Colorado. . . . Dr. **Armand Ferro** has been appointed manager of the SEF and Electronic Ballast Program at the GE Research and Development Center in Schenectady, N.Y. He now heads a group of engineers and scientists engaged in developing new kinds of high-efficiency lighting systems. Previously, he served as manager of the Device Physics Unit and had also been responsible for the development of new computer programs for simulating the behavior of a wide range of power semiconductor devices. He joined GE in 1960 at the Electronics Laboratory in Syracuse. In 1964 he started work at the Center as an electrical engineer. He has since specialized in the study of solid state devices for electronic power control, ranging from consumer to electric utility applications. As manager of the Center's Power Module Program, he specialized in high-speed switching thyristors and new methods for fabricating metal ceramic substrates for use in hybrid device assemblies. He has written or co-authored 34 technical publications and holds 15 patents. He has a PhD from RPI, and is a member of IEEE. He, his wife, and two children reside in Schenectady.

1961

Secretary:
John J Gabarro
8 Monadnock Rd
Arlington, MA
02174

Kenneth Engvall was recently elected a selectman in Boylston, Mass. He received 282 of 325 votes cast. Engvall is a civil engineer and land surveyor at Thompson-Liston Associates, Inc., Worcester. A Boylston resident, he has served on the local finance committee and zoning advisory committee. Also, he has been a coach and officer with the Little League. He and his wife Betsy have two children in Boylston schools.

John Gabarro, an authority on human behavior in organizations, has been promoted from associate professor to professor of business administration at the Harvard Business School. He holds an MBA and DBA from Harvard, and joined the Business School faculty as a research assistant in 1967. Earlier he had spent two years in the Army Signal Corps, and worked in the Electronics Division of Corning Glass Works. Among his recent publications, some coauthored, are "Socialization at the Top" in *Organizational Dynamics; Interpersonal Behavior;* and "Teaching Interpersonal Behavior." He is currently writing a new book about the ways in which new general managers develop effective working relationships with key subordinates. A director of Town and Country, Inc., Chelsea, Mass., Gabarro is also a member of the editorial boards of "Exchange," and the Public Policy and Management Program of the Intercollegiate Case Clearing House. He belongs to the American Sociological Association and the Academy of Management, and is a member and director of the Organizational Behavior Teaching Society. His wife, Marilyn, is chairman of the Department of Design at Massachusetts College of Art. The Gabarros and their eight-year-old daughter, Jana, reside in Arlington, Mass.

Morgan R. Rees, '61, of Worcester receives the Meritorious Civilian Service Medal from Colonel John P. Chandler, head of the New England Division, U.S. Army Corps of Engineers. Rees, who is chief of the Regulatory Branch at Corps headquarters in Waltham, Mass., was commended for "outstanding professional ability, innovative leadership, and unflagging dedication to purpose." He is now on loan to Corps headquarters in Washington, D.C., to assist in reformulating regulations governing permit authorities. He and his wife, Janet, are the parents of one son, Bradley.

1962

Secretary
Harry T Rapelje
1313 Parma Hilton Rd
Hilton, NY
14468

Roland Beauregard works as plant engineer at Glass Container in Dayville, Conn. . . . In August, Cdr. **Brian O'Connell** was reassigned as head of the Facilities Planning Dept. in the Western Division of the Naval Facilities Engineering Command. He is responsible for facilities planning and real estate for all Navy and Marine Corps activities in the western U.S.

1963

Secretary
Robert E Maynard, Jr.
8 Institute Rd
North Grafton, MA
01536

Robert Jamaitis has been promoted to operations manager of Norden Systems, a subsidiary of United Technologies Corp. in Norwalk, Conn. He is responsible for managing, planning and coordinating Norden's manufacturing, engineering, production and plant engineering programs in Norwalk. Most recently, Jamaitis served as manufacturing manager. Since joining the firm in 1963, he has also been production control manager, overhaul and repair supervisor, and manufacturing engineering supervisor. He holds an MBA from the University of Bridgeport. The Jamaitises, who reside in Trumbull, have three children. . . . **Robert Mellor** ran for a three-year term as road commissioner in Northbridge, Mass. in May. He is a former road commissioner and chairman of the Board of Appeals. He is a registered professional engineer in Massachusetts and a manager for New England Power Service Co.

1964

Secretary
Dr. David T Signori, Jr
6613 Denny Pl.
McLean, VA
22101

Robert Lottero's company, Power Management Systems of Woodsville, N.H., has been awarded a Scientific Atlanta franchise for selling and installing its Hotel-Motel Energy Management System in New Hampshire, Vermont and Maine. Lottero is a co-founder of the firm, which is concerned with the conservation and management of electrical energy. Power Management provides a consulting service in the commercial-industrial electrical energy market, with Lottero being primarily concerned with the consulting and engineering. Previously, he worked ten years as assistant electrical engineer for Public Service and two years as an independent consulting engineer specializing in utility work.

1965

Donald Carlson recently was elected a director of NSK-Torrington Co., an 18-year-old joint venture for the manufacture of roller bearings. . . . Still with W. R. Grace & Co., **Leonard Feldman** is now plant manager in the Construction Products Division in Jacksonville, Fla. . . . **William Hopkins** has been elected a vice president of Stone & Webster Management Consultants, Inc., New York City. He will have project management and marketing responsibilities in relation to the company's consulting services in the rates and regulatory areas. Working at Stone & Webster since 1967, Hopkins has been involved in numerous assignments with gas and electric utilities in the preparation and presentation of rate cases. Presently, his responsibilities include rates and regulatory studies with gas utilities in three Canadian provinces and work with DOE. Earlier, he was with New England Gas & Electric Co. in Massachusetts. He has studied business administration at NYU Graduate School of Business Administration. The Hopkinses and their children, Carol and Richard, enjoy summering on Westport Island, Me., and taking backpacking trips in the mountains.

Continuing with IBM, **Michael Oliver,** is now an advisory programmer and has technical responsibility for one of IBM's data entry systems. Last year he and his family spent six months in the Netherlands on a business assignment. They lived near Amsterdam, and traveled throughout Europe. "We thoroughly enjoyed our stay." . . . **Thomas Pease** has received a PhD in oceanography from New York University. . . . **William Wyman** has accepted a transfer to Cairo, Ga. with the Torrington Co.

1967

Secretary
John L. Kilguss
5 Summershade Circle
Piscataway, NJ
08854

William Carboni recently became an associate of the Spink Corporation, a leading engineering and architectural firm in Sacramento, Calif. He and his wife Charlene have an 11-year-old daughter, Jennifer. . . . **Joe Cieplak** now works as a proposal engineer for the Wilson Instrument Division of ACCO Industries in Bridgeport, Conn. He writes all proposals for custom-engineered hardness testing systems. . . . **Allen Ikalainen** has been appointed chief of the Special Permit Development Section, Permits Branch, of the Enforcement Division, EPA-Region 1, in Boston. Also, he was elected to the board of managers of the Village Condominium Association in Watertown, Mass. . . . Currently, **Roy Lindquist,** is a senior R&D engineer at Glitsch, Inc. in Dallas, Texas. He serves as secretary of the Dynamic Systems Control Division, ASME. The Lindquists and their two children reside in Richardson, Texas. . . . **Jonathan Worthley** left the Air Force last year and is presently a member of the technical staff of the MITRE Corporation in the Bus Network Systems Department.

1968

Secretary:
Charles A. Griffin
2901 Municipal Pier Rd.
Shreveport, LA
71119

▶*Married:* **Robert V. Gemmer** and Miss Claudia A. Bloomfield in East Lyme, Connecticut on June 23, 1979. Mrs. Gemmer, who holds a BS in nursing from the University of Connecticut, is employed by the East Lyme Nursing Association. The groom is a chemist in Branford. He has a doctor's degree from Stanford University.

Michael Babin is now registered as a professional engineer in California. . . . **Victor Calabretta** has been named assistant vice president at CE Maguire, Inc., Providence, R.I. He serves as manager of Maguire's Civil and Marine Division and is responsible for world-wide port and ocean engineering projects, as well as those on the Eastern Seaboard. Other responsibilities include dams, flood control, and heavy civil works. With Maguire since 1971, Calabretta holds an MSCE degree from WPI. Earlier, he was an officer in the Civil Engineer Corps, U.S. Navy. He is a registered professional engineer, and belongs to ASCE, SAME, and the Society of Naval Architects and Marine Engineers. The Calabrettas live in Jamestown, R.I. with Christopher, 4, and Katherine, 1.

Kenneth Crawford works for Pennwalt Corp. in Belville, N.J. . . . **Robert Demers** has a new position as staff assistant, Division of Pulmonary Medicine, at the University of Massachusetts Medical Center in Worcester. He also serves as an instructor in medicine at the Medical School. . . . **Kenneth Gminski** received his MBA from Rivier College, Nashua, N.H., which he attended nights for four years. He is still a senior resident field engineer in New Hampshire for Factory Mutual Engineering. . . . **David Gradwell** continues with IBM, and is an industry administrator in White Plains, N.Y. . . . **Walter Sackmann** holds the post of fluid power specialist at Hydro Air of Conn., Inc., in North Haven.

1969

Secretary
James P. Atkinson
41 Naples Rd.
Brookline, MA
02146

▶*Born:* to Mr. and Mrs. **David Zlotek** their second daughter, Katherine, in March. Patricia is three. Zlotek is president and co-owner of Hampshire Electronic, Inc. in New Hampshire.

Andrew DiLeo works as a structural engineer with Glenn Consultants in Phoenix, Arizona. . . . **Joseph Fitzgerald, Jr.,** a registered professional engineer, is presently a project engineer at Matrix Engineering, Inc. He and Shirley are the parents of Erin Elizabeth. . . . **John Poblocki** has been appointed director of economic development of the Blackstone Valley Chamber of Commerce, Pawtucket, R.I. Since last September he has been serving as industrial development specialist. Previously, he has been director of the Department of Planning and Development for the City of Woonsocket. He will also now serve as project manager for the Second Pawtucket Area Industrial Development Foundation, Inc.

1970

Secretary
F. David Ploss III
208 St. Nicholas Ave.
Worcester, MA
01606

▶*Married:* **Paul A. Akscyn** and Gail L. Spies on May 26, 1979. Mrs. Akscyn graduated from the University of Houston. She is a legal assistant for Fullbright and Jaworski. Her husband is a senior instrumentation engineer for Litwin Corp., Houston, Texas.

W. Todd Akin has been appointed to the position of assistant superintendent of maintenance and construction at Laclede Steel Company's Alton, Ill. steelworks. He joined the company last year. Prior to that, he was with IBM. . . . **Mark Gemborys** received his PhD in chemistry from Dartmouth College in June. From 1970-1972 he was a first lieutenant in the U.S. Army stationed at Fort Ord, Calif. Currently he is working in association with Dr. Gilbert Mudge in the department of pharmacology at Dartmouth Medical School, Hanover, N.H. He, his wife Janet and children, Nicole, 6, and Brian, 4, reside in West Lebanon.

1971

Secretary
Vincent T. Pace
4707 Apple Lane
West Deptford, NJ
08066

▶*Married:* **Ralph H. Reddick** to Meredith A. Cooper on May 20, 1979 in Kalamazoo, Michigan. Mrs. Reddick graduated from Eastman School of Music, Rochester, N.Y., and has completed one year of graduate work. The bridegroom has a bachelor's degree in music from the University of Connecticut, and a master's degree from Eastman School of Music. They have both signed a two-year contract to perform with the Caracas (Venezuela) Symphony orchestra — the bride as a cellist and the groom as a string bassist.

▶*Born:* to Dr. and Mrs. **Douglas E. Holmes** a son, Matthew Douglas. Having received his PhD in materials science and engineering from MIT, Holmes now works at Hughes Research Labs in Malibu, Calif., where he is investigating III-V compound semiconductors. . . . to **Paul** and **Nancy Wood Popinchalk,** '73, their second son, Samuel. (Seth is three).) Paul is with Valmont Energy Systems working in solar energy. Nancy is a "full-time" mother.

Daniel Donahue has received his master's in engineering from Tufts University School of Engineering. . . . **John Giordano** has joined Hospital Trust National Bank, where he is management science officer in the Automated Information Department. He is responsible for the new management science section, which supports the bank in quantitative decision making. He has an MBA from the University of Rhode Island, and previously was with the Old Stone Bank in Providence. . . . Last spring **Walter Jensen, Jr.,** was named by the student body at Central New England College, Worcester, as the 1979 recipient of the Excellence in Teaching Award. The award is based on knowledge of subject material, presentation techniques, practical application, and personal assistance to students. Jensen has taught courses in physics, chemistry, engineering, and mathematics at CNEC for 24 years. He is graduate of McGill University and holds a master's degree from WPI. A member of the Mathematics Association of America, he also belongs to the American Mathematical Society and the Mathematics Association of Two-Year Colleges in Massachusetts.

R. Daniel Jimenez, who has a PhD from the University of Texas, continues with ITESM Physics Dept., Sucursal de Correos "J", Monterrey, Mexico. . . . **Chia-Soon Ku** is a senior chemical engineer in the National Bureau of Standards, Washington, D.C. . . . **Dana Worthley** works for the Fram Corporation, East Providence, R.I. in product field testing.

1972

Secretary
John A. Woodward
101 Putnam St.
Orange, MA
01364

John Kaletski has been named manager of industrial engineering at Clairol's Stamford (Conn.) manufacturing facility. Since joining the firm in 1972, he has served as supervisor of aerosols and department head of sundries packaging. Presently, he is working for his MBA at the University of Bridgeport. . . . Still with Power Technologies, Inc., **Timothy Laskowski** currently resides in Rio de Janeiro, Brazil. . . . **Ted Martin** serves a technical service representative for MacDermid of Waterbury, Conn. . . . **David Meyer** is certified and a member of the American Production & Inventory Control Society. He is a consultant at Rath & Strong, Inc., Lexington, Mass.

Glenn Mortoro received an MBA from Bryant College in May. He has an MSME from the University of Connecticut, and is employed as an equipment engineer by Texas Instruments. . . . **Richard Sojka** is the new manager of production for the day shift at Clairol's Stamford (Conn.) facility He is responsible for production of all of Clairol's products in the Stamford plant. Earlier, he was senior project engineer; department head of receiving, warehousing and inventory control; and department head of oxidation packaging. He started work at Clairol in 1972.

1973

Secretary:
Jay J. Schnitzer
322 St. Paul St
Apt. #3
Brookline, MA
02146

▶*Married:* **Richard W. Graham** and Lynne D. Grossmith on May 12, 1979 in Foxboro, Massachusetts. The bride graduated from Westbrook College, and is a secretary at Norwood Hospital. The groom works as branch manager for Old Colony Bank and Trust Co., Medfield, Mass.

▶*Born:* to Mr. and Mrs. **Roger Lavallee** their first child, Michelle Marie, last September. Presently, Roger is an actuarial studies specialist in the Life Division of Aetna Life and Casualty in Hartford, Conn. His duties include competitive studies, monitoring insurance replacement activity, new product development, and analysis of state and federal life insurance regulations and their effects on company business.

Joyce Caplovich is employed as a consultant with Comptech, Computer & Management Services, East Hartford, Conn. . . . **Philip Mazzola** is a process engineer at du Pont, Chambers Works-elastomers, in Deepwater, N.J. He is a professional engineer in Delaware. He and his wife May live in Wilmington. . . . **Paul Parulis,** a senior operations engineer at General Dynamics-Electric Boat, has been elected to the Water and Sewer Commission in Waterford, Conn. . . . Dr. **Thomas Szymanski** is working for Exxon's Research and Development Laboratory in Baton Rouge, La., where he is concerned with basic fuels research. He holds an MS and PhD in inorganic chemistry from Northwestern University, Evanston, Ill. . . . **Steve Turo** serves as a process development engineer at Fiber Industries in Greenville, S.C.

▶*Born:* to Lt. and Mrs. **James Asaro** a son, James Michael, Jr. last November. Asaro, who was recently promoted to lieutenant in the Navy, has been designated a patrol plane commander in the P3C aircraft. This October he is being transferred to NAS, Milton, Fla. to become a flight instructor in the Naval Training Command. . . . to Mr. and Mrs. **Gordon Woodfall** a son, Justin, on November 2, 1978. Woodfall is a production control manager at Texas Instruments in Attleboro, Mass.

Jonathan Barnett is with Firepro, Inc., Wellesley Hills, Mass. . . . **James Carr, Jr.** continues as a partner in H. Carr & Sons, Inc., Providence, R.I., a $6 million a year, diversified wall and ceiling firm. . . . **John Fellows** serves as a senior product engineer at Peabody Process Systems in Stamford, Conn. . . . Currently, **David Gerth** works for Arthur Andersen & Co. as a management consultant in the Administrative Services Division. He has an MBA from Amos Tuck School at Dartmouth College.

Richard Ludorf continues as an engineer associate at Duke Power Co., Charlotte, N.C. . . . **David Teixeira** is assistant project engineer at Gilbane Building Co., Providence, R.I. . . . **Stephen Thibodeau** recently graduated from the University of Washington in Seattle with a PhD degree in biochemistry. He will pursue post-doctorate studies in research at the Mayo Clinic in Rochester, Minn. . . . **Robert Trotter** started as the PROCO injector design engineer in engine engineering at the Ford Motor Company in Michigan last February. He had been a senior engineer at American Bosch Division of AMBAC Industries in Springfield, Mass. His wife Robin is the confidential secretary to the president at Anchor Motor Freight.

. . . **Samuel J. Hutchinson** and Miss Mayling Ju on June 2, 1979 in Marlboro, Massachusetts. The bride is a senior at Framingham State and attended Emmanuel College and Boston State College. She is a senior computer operator for the software development group at Digital Equipment Corp. in Marlboro. Her husband, who attended Bentley College, is in the commodity resource accounting administration for the corporate data centers of Digital in Maynard.

▶*Born:* to Mr. and Mrs. **Michael J. Dudas,** a son, Michael John Dudas, Jr., on June 1, 1979.

Michael Aspinwall is planning manager at FMC Corp., Philadelphia. He has an MBA from the University of Chicago. . . . **Bruce Chamberlin** has transferred from the Photo Products Department to the Textile Fibers Department as an R&D engineer at du Pont in Wilmington, Delaware. He and his wife Susan reside in Seaford. . . . **Bruce Croft** was awarded a doctor of podiatric medicine in May at the Illinois College of Podiatric Medicine in Chicago. He was also awarded a Class of 1979 Service Award, and is a member of Kappa Tau Epsilon. Presently, he is in a podiatric residency program at Hines Veterans Administration Hospital, Hines, Illinois.

William Cunningham has joined the Electronics Corporation of America, Cambridge, as the manager of systems application engineering. The firm manufactures burner management systems which monitor and control steam generators for utilities and industries. Formerly, Cunningham was a project engineer with Foster Wheeler Energy Corporation in Livingston, N.J. He holds an MS from WPI, an MBA from Western New England College, a BS from Northeastern and an associate degree from Worcester Junior College. . . . Recently, Dr. **Francis Kiernan** received his degree in medicine from the University of Connecticut. He is now in a residency program in internal medicine at Hartford (Conn.) Hospital. . . . **Richard Mariano** serves as process analyst at Gillette in Andover, Mass.

Donald Taddia is a senior staff engineer in the Allegheny County Department of Aviation at the Greater Pittsburgh (Pa.) International Airport. He is a registered land surveyor in Pennsylvania. . . . **Paul Varadian** has left the corporate staff of Texas Instruments, Inc. to form Landmark Properties, a real estate brokerage and development firm operating out of Newton, Mass. The firm is actively engaged in the brokerage of commercial, industrial, and investment property; selling and trading of existing businesses; and the relocation and expansion of major corporations. Recently, Landmark Properties has entered the development field, specifically in the rehabilitation of older structures throughout New England into residential and commercial usage. . . . **Stephen Werner** is employed as senior engineer at Boeing Wichita in Wichita, Kansas.

1974

Secretary:
James F. Rubino
18 Landings Way
Avon Lake, OH
44012

▶*Married:* **Jeffrey C. Lindberg** and Kathleen M. Loughrey in Holyoke, Massachusetts on May 12, 1979. Mrs. Lindberg, a registered nurse, graduated from St. Vincent Hospital School of Nursing and Worcester State College. Her husband has an MSME from WPI, and is with Norton Co., Worcester.

1975

Secretary:
James D. Aceto, Jr
70 Sunnyview Dr
Vernon, CT
06066

▶*Married:* 1/Lt. **Paul Bianchet** and Patricia M. Burns on May 5, 1979 at Plattsburgh (N.Y.) Air Force Base. Mrs. Bianchet graduated from Our Lady of Victory Secretarial School, Plattsburgh, and is a civilian secretary at Plattsburgh AFB. The groom is assigned to the 380th Civil Engineering Squadron at the base. . . . **Joseph T. DelPonte** to Judy McKinney on January 27, 1979. The bridegroom is a physicist-engineer at Boeing Wichita Co. in Kansas.

1976

Secretary:
Paula E. Stratouly
318 Thornberry Court
Pittsburgh, PA
15237

▶*Married:* **Gary Chabot** and Cathy L. Honeycutt on June 2, 1979 in George, Utah. The bride, a student at Del Mar Junior College, is employed at Revett Air Conditioning. The groom is with Corpus Christi Petro Chemical in Texas. . . . **Earl T. Chapman** and Marie R. Prizzi in New York on May 19, 1979. Mrs. Chapman holds degrees from Alfred University and Nazareth College, and is employed by the East Rochester School District. Her husband is at Eastman Kodak. . . . **Walter X. Zukas** and **Paula J. Belair** on June 30, 1979 in Worcester. Mrs. Zukas, a software engineer at Sander's Associates, Nashua, N.H., is also a graduate student at the University of Lowell. Her husband is in the graduate program at the University of Massachusetts, Amherst.

Robert Barnes, Jr. is a research engineer at American Cyanamid in Stamford, Conn. . . . **Stephen** and **Noreen Pirog Borys** are both employed by Exxon in Houston, Texas. Stephen holds the post of senior technical analyst at Exxon Co. USA, and Noreen serves as a design engineer for Exxon Pipeline Co. . . . **Jeffrey Burek** currently works for GE in Lynn, Mass. He and his wife Mary Ann (McDonald) Burek, Becker, '75, reside in Maynard. . . . **Randall Emerson** works as a technical representative at Kemper Insurance Co., North Quincy, Mass. . . . **Walter Grandfield** continues with Motorola in Plantation, Fla. . . . **Jeff Gravdahl** is a sales representative at A. MOE & Co., Inc., Philadelphia, Pa. . . . **Ross Greenberg** has been accepted at medical school and will be attending the State University of New York at Buffalo.

John Highman now works for Analogics, Inc., Wakefield, Mass. as an assembly language programmer. . . . Continuing with Kodak, **Paul Jacques** is presently assigned as a project engineer in the machine design development group. . . . Since April, **John Maxouris** has been concerned with systems at United Jersey Bank. He also coaches and plays with the New York Astros, a semi-pro soccer team in New York. . . . **Phil McNamara,** still with Electric Boat-General Dynamics, continues as a nuclear shift test engineer. . . . **James Russo** is a project manager at Charles Jewett Corp., Glastonbury, Conn.

1977

Secretary
Kathleen Molony
Apt #1
29 Seaview Ave
Norwalk, CT
06855

▶*Married:* **Allen F. Apel** to Miss Jayne F. Lewis in Beacon, New York recently. Mrs. Apel graduated from Clarkson College of Technology and is a programmer-analyst at Pratt & Whitney Aircraft, East Hartford, Conn., where her husband is also a programmer-analyst. . . . **David R. Bolin** and Miss Jill E. Holman on June 16, 1979 in Hopkinton, Massachusetts. The bride graduated from Becker and Bentley College. Her husband is studying for his doctorate in chemistry at MIT. . . . **Gerard M. Chase** to Cynthia M. Hastings in Suffield, Connecticut on May 5, 1979. Mrs. Chase is a graduate of Hartford State Technical College. She is employed by United Illuminating Co., New Haven, as a technical assistant in the ME department. The bridegroom, also employed by United Illuminating (Bridgeport), is a results laboratory supervisor. . . . **Joseph J. Kilar** and Nancy I. Schattner recently in Peabody, Massachusetts. The bride is a Becker graduate and is employed as a medical assistant in Salem. Her husband works for Turner Construction Co., Boston. . . . **Mark W. Popham** and Miss Brenda L. MacEwen on May 12, 1979 in Athol, Massachusetts. Mrs. Popham graduated from Athol High School and is in the sales department at L. S. Starrett Co. The groom is an environmental engineer for Cullinan Engineering of Auburn.

Chris Cocaine now works as a mechanical consulting engineer in the Machinery Division of USM Corp. in Beverly, Mass. . . . **Charles Dreyfus III** is studying for his master's and doctorate degrees in the mathematics department at the University of Colorado at Boulder, where he also teaches. . . . **George Harding** serves as an environmental engineer with the EPA in Region I, Boston, and attends Suffolk Law School at night. . . . In May, **Thomas Killeen** was promoted from assistant property consultant to property consultant at Employers Insurance of Wausau. . . . **Jim Leary,** a transportation planner in Worcester, has created Worcester's first comic strip, "Common People," which appears in *Worcester Magazine*. . . . **Gary Loeb** serves as assistant to the superintendent of Niagara Mohawk's Albany steam plant. He is a senior deacon of Washington Lodge (Masons) in Albany. . . . **Joan Lyshak Roy** has been named systems analyst in the data processing group of Bay State Abrasives, Westboro, Mass. Previously, she was a programmer-analyst at the American Mathematical Society in Providence, R.I. . . . **Scott Saftler** holds the post of technical representative in the Cambridge, Mass. office of National CSS. He writes, "Some of my customers include old classmates at WPI **(Amy Schneider),** and a former professor in the computer science department, Dennis Barlow."

1978

Secretary
Cynthia Grynick
303 Wolcott St
Waterbury, CT
06705

▶*Married:* **Constance M. Cunningham** and Brian M. Grenda on July 7, 1979. Mrs. Grenda, who is at the University of Lowell, is employed by Raytheon Co. Her husband graduated from Lowell Technological Institute and is a senior industrial engineer at Raytheon in Andover. . . . **Ronald E. Fish** and Miss Marcy B. Elden on June 3, 1979 in Swampscott, Massachusetts. The bride has a BA in social work from Fairleigh Dickinson University, Teaneck, N.J. Formerly with Metritape, Inc., Concord, Mass., the bridegroom is now an engineer with Boeing Co. located at Edwards Air Force Base in California. . . . **David T. Hawley** and Martha A. Gross in Thomaston, Maine on May 26, 1979. Mrs. Hawley graduated from the University of Southern Maine. Her husband serves as vice president of Howard Products in Worcester.

Robert P. Lavieri II and Miss Kathleen M. Grant in Worcester on June 9, 1979. The bride is a student at Boston University. The groom is manufacturing manager for Procter & Gamble in Quincy, Mass. . . . **Steven R. Mickool** to Lauren M. Heath on May 26, 1979 in Manchester, Connecticut. Mrs. Mickool graduated from Manchester High School and is an engineering secretary. Her husband works for Pratt & Whitney in Connecticut. . . . **Robert H. Warburton, Jr.** and **Kathleen A. Fitzgerald,** '79 on June 30, 1979 in West Springfield, Mass. The groom is with Babcock and Wilcox in Denver, Colorado.

William Christian serves in the Peace Corps and is with the Water Development Department in Kahamega, Kenya. His wife, Susan, teaches in Kahamega General Hospital. . . **Henry Daley** is a teaching assistant at the University of Arizona in Tucson. . . . Buffalo Forge Co., Pumps Division, of North Tonawanda, N.Y., has employed **Richard Egerton** as a project engineer. . . . **David Fisher** has joined The Trane Company's Commercial Air Conditioning Division at the Roanoke, Va. sales office. He recently completed the six-month Trane Graduate Engineer Training Program, which concentrates on specialized heat transfer theory and practice as well as in-depth coverage of company products. Trane is a leading manufacturer of air conditioning, refrigeration, and heat transfer equipment for commercial, residential, industrial, transport and special process applications and has facilities worldwide. . . .

James Fowler is an engineer-in-training at Naval Sea Systems Command in the Department of the Navy, Washington, D.C.

Peter Hayden spoke on leadership and service at the Athol (Mass.) High School annual Honor Society banquet in May. He was president of the local chapter in 1973-74. . . . **Erik Hedberg** is studying for his MS in science at the University of Miami. . . . **Sandra Hoyle** has joined Digital Equipment Corp., Tewksbury, Mass. as a product support engineer. . . . **Amy Hunter** is an associate financial analyst in field engineering at Data General Corp. in Westboro, Mass. . . . **Kenneth King** has been promoted to assistant engineer in the Western Division at the Public Service Company of New Hampshire in Keene. Formerly, he was an assistant engineer in the general engineering office. The Kings have one daughter, and have moved to Keene from Manchester. . . . **W. Charles McGovern** works as an electrical engineer at Raytheon Co. in Sudbury, Mass. . . . **John Melillo, Jr.** is also at Raytheon in Sudbury. . . . **John Moulton** is with Robert Bosch, Bamberg, West Germany.

Wayne Noss is on the research staff at MIT. . . . **Sergej Ochrimenko** is employed by Spencer White & Prentis, Hackensack, N.J. . . . **Richard Ruscito** serves as a chemical engineer at the U.S. Naval Ordnance Station in Indian Head, Maryland. . . . **John Zimmer** received a letter of commendation from the general manager of Westinghouse' Bettis Atomic Power Laboratory regarding his outstanding efforts during the Three Mile Island incident. The letter stated: "This was a very difficult and crucial period and the outstanding efforts of people like you help Westinghouse and the Bettis Atomic Power Laboratory maintain their fine reputation in the nuclear industry." A commendation letter was also sent to Bettis by Admiral H. G. Rickover of the Department of Energy who said, "It was an outstanding job." John is with the reactor servicing A4W project, West Mifflin, Pa. During the Three Mile Island incident he was on the Task Force which drained flammable gases back into the containment building and separated them for discharge and decontamination.

1979

▶*Married:* **John A. Auger** and Sarah Bowden on July 1, 1979 in Worcester. The bride is a Becker graduate. The groom is with Parker-Hannifin in Ravenna, Ohio. . . . **Philip J. Cameron III** and Miss Robin A. Masciadrelli on June 9, 1979 in Westfield, Massachusetts. Mrs. Cameron graduated from Becker. Her husband has joined Clairol in Stamford, Conn. . . . Miss **Diane E. Curren** to the Rev. David Bird in Connecticut on June 9, 1979. The groom graduated from St. David's College, Wales, and General Theological Seminary, New York City. . . . **Jeffrey S. Duhaime** and Miss Amy E. Somers in Waterbury, Connecticut on June 30, 1979. The bride goes to Fairfield University. Her husband is a test engineer at Sikorsky Aircraft in Stratford, Conn. . . . **Thomas N. Falls** and Nancy J. Disbrow in Milford, Connecticut on June 9, 1979. Mrs. Falls holds an AS degree in informational systems from Quinnipiac College. The bridegroom is design engineer at Kimberly-Clark, Neenah, Wisc. . . . **Michael G. Gallerani** to Miss Sharon Goodwin in Connecticut on June 16, 1979. The bride graduated from Barrington College in Rhode Island and has, until recently, been employed as associate in admissions at the college. Her husband is in manufacturing management at General Electric in Oberlin, Ohio. . . . **Lawrence C. Hughes, Jr.** and Ginnie L. Young on April 21, 1979 in Webster, Massachusetts. Mrs. Hughes graduated from Bartlett High School. Her husband is a laboratory research technician for United Technologies Research Center, East Hartford, Conn. . . . **Philip H. Turek** and Susan M. Easley in Manchester, Connecticut on June 16, 1979. Mrs. Turek is a Becker graduate. The groom works for Parker-Hannifin in Ohio.

John Arnold presently acts as a consultant at Interactive Systems, Inc. in Boston. He is a trustee of the Westborough Public Library. . . . **David Bachiochi** holds the post of scientific programmer with Pratt & Whitney Aircraft Group in Hartford, Conn. . . . **David Bergeron** is with Leominster (Mass.) Tool Co., Inc. . . . **Francis Biagiarelli** is employed by the Petroleum Services Group of Dresser Industries, Inc., Houston, Texas. . . . Presently, **Paul Blackmer** works as a manufacturing management trainee at GE. . . . **Joan Bolduc** has been employed by Procter & Gamble at the Winton Hill Technical Center in Cincinnati, Ohio. . . . **Keith Bonn** works as a design engineer in the Commercial Products Division at Pratt & Whitney Aircraft. . . . **Allen Buchinski** serves as a research assistant in the ME department at WPI. . . . **Paul Burgarella** is with Sprague Electric in Worcester. . . . **Stephen Capoto** has joined GE as a sales engineer. . . . **Joseph Carbone** is a senior design engineer at Teradyne in Boston.

Joseph Carrolo has joined Hewlett-Packard, Lexington, Mass., as a staff engineer. He belongs to the Unity Athletic Club. . . . Currently, **Wallace Catanach III** is an experimental engineer at Warner & Swasey in Worcester. . . . **Karen Chesney** holds the post of operations supervisor at AT & T Long Lines, Freehold, N.J. . . . **C. James Cook** is a software engineer at Prime Computer, Inc., Newton, Mass. . . . **Albert Cormier** serves as a technical representative for Kemper Insurance in North Quincy, Mass. . . . **Charles Cox** is in research and engineering at Eastman Kodak. . . . **Philip Cullin, Jr.** has been employed by the Portsmouth (N.H.) Naval Shipyard as an electrical engineer. . . . **Kevin Doherty** and **John Fitzgerald** are management trainees at P. J. Stella, Wakefield, Mass. . . . **Judith Dorkin** works as a staff assistant in network distribution at the Southern New England Telephone Co. in Hamden, Conn. . . . **Sandra Dorr** was recently named as assistant programmer for IBM at Middletown Navy Base in Rhode Island. . . . **Steven Drawe** has been employed as a chemical process engineer at Eastman Kodak Co. . . . **M. Beth Driscoll** holds the post of operations supervisor in the management development program at AT&T Long Lines in Springfield, Mass. . . . **Mary Dunn** has been employed by Digital Equipment Co., Colorado Springs, Colorado.

LFE Corporation, Waltham, Mass. has tapped **William Englemann** as a project engineer. . . . **Mary Farren** serves as a junior engineer at IBM in Poughkeepsie, N.Y. . . . **David Ford** works for Bernard Johnson, Inc., in Washington, D.C. . . . **Louis Frascotti** is a technical representative at Kemper Insurance Co., North Quincy, Mass. . . . **Arthur Girard** is a neighborhood coordinator for the Memorial Square Citizens Council in Springfield, Mass. . . . **Kevin Grealish** works as a structural engineer at Pratt & Whitney Aircraft, East Hartford, Conn. . . . **Donald Griglack** is now a process engineer at American Cyanamid's Fortier Plant in Westwego, La. . . . **Daniel Grossman** works for Cambridge Telecommunications, Inc., Burlington, Mass. He is a systems engineer in the software group. . . . **Kirk Gustafson** serves as a power plant analyst at Pratt & Whitney Aircraft. . . . The Trane Co., Lacrosse, Wisc., has employed **Robert Hart.** . . . **Suzanne Hess** is a technical sales representative with Exxon of Houston, Texas. . . . **Robert Howe** holds the post of design engineer at Hamilton Standard in Windsor Locks, Conn.

John Jacobson is with GE in Lynn, Mass. . . . **Paul Keary** is employed as a field engineer at Shell Oil Company in Houston. . . . Currently, **Paul Keenan** is with GE. Previously, he had been a self-employed house painting contractor. . . . **James Kelleher** is with IBM, Newport, R.I. . . . **Daniel Kennefick** serves as a project engineer at du Pont's Louisville (Ky.) Works. . . . **Andre Labrecque** works as a production planner at Armstrong Cork in Lancaster, Pa. . . . American Hospital Supply Corp., Miami, Fla., has hired **Terry Langevin** as an associate engineer in the Dade Division. . . . **Stephen Laskowski** has been named an estimator at Westcott Construction Co. in North Attleboro, Mass. . . . **David Mangini** is employed as a staff engineer in Network Operations at Southern New England Telephone Co. in New Haven, Conn. . . . **Larry Marino** is with AT&T in Worcester. . . . **Alfred Marotta** holds the position of electronic engineer at Griffiss AFB in Rome, N.Y. . . . **Christopher Mather** has been appointed staff engineer at Hewlett-Packard Company in Syracuse, N.Y. . . . **Mark McCabe** works as a project superintendent at Ernest Guigli and Sons, Inc., Wellesley, Mass. . . . **Michael McDonald** is an engineering field representative in Industrial Risk Insurers in Hartford, Conn. . . . **Paul McKeown** serves as an associate engineer at Westinghouse Bettis Atomic Power Lab., West Mifflin, Pa. . . . **John Meader** has been employed by Dewberry, Nealon & Davis in Vienna, Va. . . . **James Michaud** holds the post of technical representative in the HPR Department at Kemper Group in Syracuse, N.Y. . . . **Jeffery Mills** is a graduate student in the ME Department at Duke University, Durham, N.C.

Carl Nyerick works as an associate engineer at Westinghouse Bettis Atomic Power Laboratory in West Mifflin, Pa. . . . **David Ofcarcik** has been named a field engineer at GE in Wellesley, Mass. . . . **Bharvi Parikh** is employed in the QYX Division of Exxon in Lionville, Pa. . . . **Keith Payea** has joined Paratronics, Inc., San Jose, Calif. . . . **Richard Perry** is an industrial engineer with the Torrington Co. in Connecticut. . . . **Michael Poirier** teaches in the Peace Corps in Kenya. . . . **Daniel Pouliot** is a management trainee at New England Telephone, Framingham, Mass. . . . **Michael Rafa** has accepted a position with Westinghouse in conjunction with the company's graduate placement program. . . . **Robert Reed** is in engineering and production management in the central division of U.S. Steel in Gary, Indiana. . . . **Gordon Reynolds, Jr.** has joined KVB, an air pollution consulting firm in Hartsdale, N.Y. He is a consulting engineer. . . . **Laurent Rheault** works as a field service engineer at Babcock & Wilcox Co., New York City. . . . **Tom Rockwood** holds the post of team manager at Procter & Gamble Paper Products Co., Mehoopany, Pa. . . . **Phillip Roux** is with QYX, a Division of Exxon Enterprises in Lionville, Pa. . . . **Kenneth Roy** has joined Honeywell's Marketing Operation in Billerica, Mass., where he is a minicomputer analyst. In his new post he analyzes technical product information and provides sales support to the marketing operation. Roy has an MSCS from WPI. . . . Currently, **Philip Rubin** is a research assistant at WPI. . . . **Stephen Rusckowski** is in production management at Procter & Gamble, Quincy, Mass.

Ensign **Robert Sachuf,** USN, is assistant public works officer in charge of construction at the Naval Communication Station in Stockton, Calif. He belongs to the American Nuclear Society, the National Society of Professional Engineers, Society of American Military Engineers, and ASME. . . . **Sanford Selman** has been appointed an associate engineer at Potomac Electric Power Co., Washington, D.C. . . . **Peter Simonson** has accepted a position with Sanders Associates, Inc., Nashua, N.H. . . . Pratt & Whitney of West Palm Beach, Fla. has employed **Joseph Spinn** as an analytic engineer in the Government Products Division. . . . **Jeffrey Stickles** is currently a manufacturing management trainee at GE in Erie, Pa. . . . **Beth Stone** holds a post concerned with optics at IBM Corp. in East Fishkill, N.Y. . . . **David Szkutak** serves as a process supervisor at Procter & Gamble Mfg. Co., St. Bernard, Ohio. . . . **George Tompsett III** is with Hamilton Standard in Windsor Locks, Conn., where he is an associate engineer in manufacturing. . . . **Susan Turner** is presently at Cornell University working for her MS in geotechnical engineering. . . . **Frank Urbanski** works as a process engineer at Stauffer Chemical Co., Delaware City, Del. . . . **Harold Watts, Jr.** is a design engineer at Harris Corp., Westerly, R.I. . . . **John Willemain** was recently employed as a mathematics teacher at South Hadley (Mass.) High School.

Natural Science Program

Dr. **Jerry Jasinsky, '68,** assistant professor of chemistry at Keene (N.H.) State College, presented a program on energy and environment at the Masonic Lodge in Windsor, Vt. in May. He received his BA and MST from the University of New Hampshire, and his PhD in chemistry from the University of Wyoming. He belongs to the American Chemical Society, Sigma Xi, and the American Association for the Advancement of Science.

Larry George '78, has been appointed principal of the Henniker (N.H.) Schools. There were 80 candidates for the position and five finalists. Criteria for the post were: curriculum development and teacher evaluation skills, disciplinary standards, commitment to excellence, ability to work as a member of an administrative team, and communication skills. George holds a BA from Gordon College and has attended Salem (N.H.) State University and Wisconsin State University. He taught science for two years, and has been assistant principal in Amesbury, Mass.

Stanley Bebyn, '79, teaches at Bennet Junior High School in Manchester, Conn. . . . **Anne Browne, '79,** is at Lunenburg (Mass.) High School. . . . **Anthony Messa, '79,** is a teacher at Manchester Memorial High School in New Hampshire. . . . **Paul Starek, '79,** of Holliston, Mass., is on the staff at Rindge Tech. in Cambridge. . . . **Robin Williams, '79,** teaches at Ahern Intermediate School in Foxboro, Mass. . . . **Paul Zeolla, '79,** who resides in Dedham, Mass., is employed as a staff member at Walsh Middle School in Framingham.

School of Industrial Management

During his career, **Bob Baxter, '53,** has served as New England sales administrator for the Wickwire Spencer Steel Division of Colorado Steel and Iron; national sales manager for a Massachusetts conglomerate; and national sales manager for Steel Fab, Inc., Fitchburg, Mass. In 1974 he formed Baxter Enterprises, acting as representative and broker for several large firms located in the East. Currently, the firm operates strictly within the steel trade and represents a large foundry, a pipe manufacturer, a structural steel company, a perforated metal, expanded metal, and textured metal company, and a tool and die manufacturer. Growth for Baxter Enterprises has increased at the rate of 25% per annum for the last three years.

Recently, **Harold White, '55,** was named vice president and general manager of the newly created organic grinding wheel division at Norton Co. in Worcester. His division will include the vitrified grinding wheel division and the diamond products division, as well as the organic grinding wheel division. Previously, White was vice president and managing director of abrasives operations in Northern Europe for Norton. He is a registered, professional engineer.

Clifford Pontbriand, '58, holds the post of director of operations for American Polarizers, Inc. in Reading, Pa. Earlier, he was vice president of manufacturing at the Cool-Ray division of Warner Lambert Co., and had been with American Optical in Southbridge, Mass.

John Gray, '59, who retired in 1973 as purchasing agent after 28 years of service at Bay State Abrasives, Westboro, Mass., is now a part-time consultant doing statistical analyses for the Central Mass. Employers' Association. He has a BA and MA from Assumption College. He belongs to the Audubon and Forbush Bird Club and is a backyard gardner. Active in church affairs, he has served nine years on the Parish Council and as a lector and adult education teacher. He was chairman of the Hearings Board for three years, and has been a member of the religious education executive board. He has been active at the Calvary Retreat Center; been a promoter of the speaker's list; and concerned with the Worcester County Ecumenical Council. He is a former member of the worship committee. "Sometimes I wonder when I found time to go to work before forced retirement at age 65."

Paul Kearney, '59, presently serves as an accident prevention consultant for the Central Mass. Employers' Association of Worcester. Formerly he was with the Worcester Gas Light Co. (now Commonwealth Gas Co.) for many years, retiring in 1972 as manager of the Hyde Park-Dedham Division. He is a past president of the Dedham Rotary Club. His hobbies include gardening and traveling. He has been to Hawaii, Jamaica, the Canary Islands, Canada, and England. "The next trip will be to Portugal, when I obtain enough loose change." He has studied at Holy Cross, the University of Michigan and Columbia.

Donald Sangster, '61, writes: "Living in Greenville, S.C. A most pleasant spot except for long, hot, humid summers. For the last three years I've been shuffling paper at a textile machinery importing and supply house, a far cry from my previous long life in machinery manufacturing management." Sangster's son is in oil exploration with Phillips in Oklahoma. His daughter recently climbed in the Himalayas. His first grandchild, a boy, was born last December. He says he'd like to hear from other '61 SIM people.

Henning Frederiksen, '63, has been appointed to the board of directors at Bay Bank United in Taunton, Mass. He is president-treasurer of Plainville Machine Works, Inc., and holds corporate positions at Plainville Products, Inc. and Plainville Hydraulics. A veteran of World War II and the Korean conflict, he served with both the U.S. Army and Air Force. He belongs to the Lions Club and the Masons.

Philip Nims, '65, is chief engineer of the Textile Division at Crompton & Knowles Corp., Charlotte, N.C.

Scott Sargent, '65, has been elected vice president and controller of Morgan Construction Co. in Worcester. With the firm for 22 years, most recently he held the post of controller and assistant treasurer. He graduated from Bowdoin, and is secretary-treasurer of the Bowdoin Alumni Club of Worcester. He is a member of the Financial Executives' Institute.

Vincent Kubert, '68, is a project engineer at Harris Corp., Grand Prairie, Texas. Harris is one of the world's largest builders of web type printing presses, and presently is constructing a $30 million manufacturing plant in Grapevine, Texas. Kubert lives in Arlington.

Recently, **Alfred Alicandro, '69,** sold his company, Entec Plastic & Engineering Corp. to a group of private businessmen. He founded the firm after graduating from WPI. It ultimately grew to 17 plastic injection molding machines manufacturing 8-track cartridge tapes and cassettes and related products. It also expanded to 10 warehouses and nationwide distributorships. In Leominster the firm employed 125 people. The engineering section designed products and molds for the industry. Alicandro is being retained for a time as a consultant by the new owners, after which he and his wife will relocate to Cape Cod. He was listed in the 1975 edition of "Who's Who In Massachusetts."

Robert Goff, '70, a former division superintendent for New England Power Co., Worcester, is retired and residing in Pawcatuck, Conn.

Warren Prescott, '72, has retired and is living in North Fort Myers, Florida.

Alan Skiest, '74, holds the position of senior programmer-analyst for DECUS (Digital Equipment Corporation Users Society), located at the Marlboro, Mass. facility of Digital Equipment Computer Corp.

Robert Harris, '76, is manufacturing manager at Henry L. Hanson, Inc., Worcester.

Raymond Knowles, '79, has purchased Graham Manufacturing Co., Inc. East Greenwich, R.I. and renamed it Graham Products. Previously, he was vice president and general manager of Rawling Gear, a member company of Gear Motions in Shrewsbury. Graham Products produces machine vises, pressroom equipment, and related products.

Dr. **Jerrold P. Commons,** college physician and head of health services at WPI, died at his home in Worcester on July 25, 1979.

He was a native of Los Molinos, Calif. In 1952 he graduated from the Washington University Medical School in St. Louis. He was also a graduate of the University of California. He served his internship at St. Louis County Hospital, Clayton, Mo., and his residency at Worcester State Hospital.

Since 1978, Dr. Commons was acting director, residency in family practice, at the University of Massachusetts Hospital. He was also director of student and employee health at the hospital, and associate professor of family and community medicine.

He was on the staff of Hahnemann Hospital, and had been director of the Family Health Center of the hospital on Dean St. As health physician at Hahnemann, Dr. Commons was responsible for the emergency health care of employees, and served as house physician for student nurses. He was appointed to the hospital staff in 1956.

Dr. Commons was a member of the Massachusetts Medical Society, American Academy of Family Practice, American College Health Association, American School Health Association, Royal Society of Health, Worcester District Medical Society, and the board of governors of the Massachusetts Academy of Family Physicians. He was a World War II Army veteran.

Harvey C. Friars, '13, a retired farmer, died at his home in Shrewsbury, Massachusetts on June 18, 1979 at the age of 90.

He was born on Jan. 30, 1889 in Sussex, New Brunswick, Canada. After studying electrical engineering at WPI, he worked for the Worcester Electric Company and Commonwealth Electric in Summit, N.J. before becoming a self-employed farmer.

A former long-time member of the Shrewsbury Light Commission, he also belonged to the Tech Old-Timers.

Norman C. Firth, '20, of Maplewood, New Jersey passed away on December 18, 1978.

From 1936 to 1954 he held the post of publishing director of Dun & Bradstreet, Inc. in New York. Concurrently he served as editor of "Dun's Review," as vice president of a subsidiary, Dun & Bradstreet Corp., and as director of the Business Economics Department. Previously, he had been with McGraw-Hill Publishing, Inc., for former A. W. Shaw Co. of Chicago, and the U.S. Army as a 2/Lt. in the Engineers Corps during World War I.

After retiring from Dun & Bradstreet, he wrote business books, pamphlets, and did some free-lance editing. He belonged to the American Marketing Association, the American Economic Association, American Statistical Association, and Adult Education Association. He was a former president of the Board of Trustees of the South Orange-Maplewood (N.J.) Adult School.

Mr. Firth graduated with a BSEE from WPI, and was a member of ATO. He was born on Sept. 30, 1895 in Westfield, Mass.

Philip S. Parker, '22, a retired chief engineer at H. K. Ferguson Co., died on November 30, 1978 in Middletown, Connecticut.

A Worcester native, he was born on April 13, 1901. In 1922 he graduated as a civil engineer. During his career he was with the U.S. Geological Survey; Massachusetts Department of Public Works; Stone & Webster; E. B. Badger & Sons; and Metcalf & Eddy. Prior to joining Ferguson in New York City in 1954, he served as chief of the process plant division, Dresser-Stacey, in Cincinnati.

Mr. Parker belonged to the Cleveland Engineering Society, Armed Forces Chemical Association, and American Society for Testing Materials. He was a former treasurer of the New York Chapter of the Alumni Association.

Morgan M. Whitney, '22, a retired mechanical engineer associated with Griscom-Russell Co., New York City, for many years, died at his home in Southbury, Connecticut on May 31, 1979.

After graduation, he became an assistant in the WPI ME department. Later he was with Whitney & Co., Leominster, Mass., where he was factory manager. In 1961 he joined Baldwin-Lima-Hamilton as a sales engineer, and for a time, was a self-employed manufacturers' agent and private consultant. He was born June 17, 1901 in Leominster, Mass.

A member of the ASME, he also belonged to the Masons and Phi Gamma Delta. He was a former treasurer of the New York Chapter of the WPI Alumni Association. His son, Morgan M. Whitney, Jr., graduated from WPI in 1959.

Robert B. Smith, '24, owner of the former Smith Bros. Plumbing & Heating Co., died in Leominster (Mass.) Hospital on June 21, 1979. He was 76 years old.

He was a native and life-long resident of Leominster. After attending WPI, he graduated from Northeastern University. A journeyman, master plumber, and mechanical engineer, he had worked in the family business for 37 years, before retiring in 1972.

Mr. Smith belonged to the Episcopal Church, and was a 32nd degree Mason, and a Scottish Rite and Shrine member. He was a past patron of Temple Chapter, OES, and a member of the Leominster Senior Citizens.

Harold G. Butterworth, '28, retired assistant to the general manager of Factory Insurance Association, died of a heart attack on June 9, 1979 at the Hartford (Conn.) Hospital.

He was born Feb. 19, 1906 in Athol, Mass. In 1928 he received his BSCE from WPI. After graduation he joined the Factory Insurance Association (now Industrial Risk Insurers), and stayed with the company for 42 years, retiring in 1971. While with the firm, he served as an inspector, a supervisor of underwriting, and an executive special agent, before becoming assistant to the general manager. He belonged to Theta Chi, and was the father of Richard C. Butterworth, '55.

Clifford S. Livermore, '28, died at his home in Brooklin, Maine on June 19, 1979 at the age of 72.

He graduated with a BSME in 1928. Until 1941 he was employed by the New York Telephone Co. in New York City. During World War II he was commissioned a commander in the Naval Reserve. Later, he was named staff director in the Research and Development Division of the Office of the Assistant Secretary of Defense in Washington, D.C. He retired in 1968.

Mr. Livermore was a former member of the American Ordnance Association, National Rifle Association, and the National Geographic Association. He belonged to Phi Gamma Delta. A past president of the New York Chapter of the WPI Alumni Association, he had also served as a Council Representative. He was born on Sept. 5, 1906 in Holyoke, Mass.

Emil R. Dube, '32, died of congestive heart failure on May 21, 1979 at the home of his daughter in Bronxville, New York.

A Fall River, Mass., native, he was born there on May 13, 1909. He was a member of the Class of 1932, and studied chemistry at WPI. He then joined Malt Diastase Co., Brooklyn, N.Y., as a chemist. For a time he was chemist-in-charge at Swift & Co., in Jersey City and was later named chief chemist and eastern quality assurance manager at Swift in Kearny, N.J. He retired in 1974 after forty years of service.

A member of the American Chemical Society, Mr. Dube also belonged to the Institute of Food Technologists.

Frederick L. Yeo, '36, of Upland, California passed away on April 26, 1979.

In 1936 he graduated as a civil engineer from WPI, and joined Boston & Maine Transportation Co., Boston, where he stayed until 1941. From 1941 to 1961 he was with the U.S. Navy. He retired as a commander in 1961.

For the next fifteen years he was employed by Aerojet-General Corp. in Azusa, Calif., where he was reliability and quality control manager for the Midas Satellite Program. After retiring from Aerojet, he ran a small, part-time accounting business.

Mr. Yeo belonged to Phi Gamma Delta. He was born in Winchester, Mass. on April 3, 1913.

John W. Luoma, '49, of Los Gatos, California recently passed away.

He was born on July 25, 1926 in Fitchburg, Mass. He received his BSEE from WPI. For many years he worked for General Electric, and was at various times located in Vermont, Pennsylvania, and in California, where he was an application engineer. He was a member of Theta Chi and Sigma Xi.

Walter L. Magnuson, Jr., SIM '61, a registered engineer and senior manufacturing engineer for Jamesbury Corp. of Worcester, died on June 20, 1979 at The Memorial Hospital, Worcester. He was 57.

He was a soloist in the Bethlehem Covenant Church Choir and a cantor at Temple Emanuel in Worcester. A charter member of the Salisbury Singers, he was also a 32nd degree Mason, a member of the Scottish Rite, the Shrine, and the Society of Manufacturing Engineers.

Mr. Magnuson graduated from Northeastern University. Prior to joining Jamesbury, he had been associated with George F. Wright Steel & Wire Co.

Philippe P. Cousteau, '67, son of oceanographer Jacques Cousteau, was killed in a seaplane which crashed while he was landing it near the Tagus River in Alverca, Portugal on June 28, 1979.

A photographer, author, and diver, the younger Cousteau devoted as much time to flying as his father did to underwater research. In 1976 he barely escaped death in a helicopter crash on Easter Island. He made his first aqualung dive at 4, and won a glider pilot's license at 16.

He dived in every ocean in the world, and shared the experience with millions as TV producer, photographer, and lecturer. He studied briefly at WPI and MIT, and held a degree in science from the College de Normandie.

After leaving the U.S., he returned to Paris to train as a cinematographer. He worked on the award-winning feature film, "World Without Sun," and was one of six "oceanauts" to live 235 ft. below the sea for 28 days during the historic Conshelf III Project in 1965 for a National Geographic Special on CBS.

In 1968 he began filming "The Undersea World of Jacques Cousteau" for ABC. He was vice president of the Cousteau Society and director of the Cousteau TV series which won ten Emmy awards. With his father, he wrote the book, *Sharks*.

Philippe Cousteau is survived by his wife, Jan, and daughter, Alexandra. He was born on Dec. 30, 1940 in Toulon, France.

Kenneth H. Maymon, '70, manager of conversion engineering at General Electric in Fitchburg, Mass., died in Nashua, New Hampshire on March 23, 1979. He was 45.

Associated with GE for the past 24 years, he had graduated in 1954 from Wentworth Institute, and had received a BSME from WPI in 1970. He served as Republican town chairman and as a member of the budget committee in Milford, N.H.

He was a former Eagle Scout, scoutmaster, and a troop committeeman. A former vestryman of the Church of Our Saviour, he was also a past master councilor of DeMolay in Riverside, R.I. He had been a dad advisor for DeMolay in Milford, and an advisory board member. He was a recipient of the DeMolay Cross of Honor. A past master of a Masonic lodge, he was also an Arch Mason and a Scottish Rite member.

At the time of his death, he was serving as district deputy grand lecturer of the Second Masonic District. He was grand representative to the Grand Lodge in Washington, D.C., and had received the General John Sullivan award. He was born on April 6, 1933 in Providence, R.I.

Bronislaw Stasiowski, '74, died at his home in Chicopee Falls, Massachusetts, on March 12, 1979 at the age of 53.

A lifelong resident of Chicopee, he was born on September 25, 1925. He graduated from Hampden College of Pharmacy. In 1974 he graduated with an MS from WPI. For the past ten years he was a science teacher at Chicopee High School. Previously, he had been manager of Whalen Drug Store.

Mr. Stasiowski was a Navy veteran of World War II, and a member of the Elks.

Robert P. Lyle, '78, drowned in January in Stearns Reservoir, Framingham, Massachusetts, following a skating accident. His body was recovered on March 14.

He was born on February 20, 1955 in Framingham. He had received his BS in chemical engineering from WPI.

The accident occurred during 20-below zero weather, severely hampering rescue attempts by police and MDC scuba teams, which were characterized by Norman Lyle, Robert's father, as "absolutely fantastic."

Wayne K. Shiatte, '78, died in a construction accident in Wheaton, Illinois on April 4, 1979.

He was inspecting a storm sewer project, when he was overcome by an excess of carbon dioxide in the air. He was employed by Baxter & Woodman, Inc., consulting engineers.

Born on Feb. 20, 1956 in Marysville, Calif., he later enrolled at WPI and graduated with a BSCE in 1978. He belonged to ATO. His father is *Kenneth W. Shiatte*, '53.

In the summer issue of the Journal, the death of Elbridge M. Smith, Sr., '45, was incorrectly listed as that of Elbridge M. Smith, Jr.

Plan to attend

Alumni Basketball
Night,
February 16

Reunion Weekend,
June 5-8, 1980

WINTER 1980

WPI journal

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Editor: H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Design: H. Russell Kay

Typesetting: County Photo Compositing, Jefferson, Mass., and Davis Press, Inc., Worcester, Mass.

Printing: The House of Offset, Inc., Somerville, Mass.

Address all correspondence to the Editor, *The WPI Journal,* Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

The WPI Journal (USPS no. 0148-6128) is published for the WPI Alumni Association by Worcester Polytechnic Institute.
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The WPI Journal is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second Class postage paid at Worcester, Massachusetts.

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The northwest corner of the tower room, with the stairs leading to the clock and roof, and the site of the grafitti.

A room at the top

YOU KNOW the clock tower on Boynton. You may remember the oval wooden stairway that used to wind its way from the basement to the third floor. But there's a fourth floor in the tower that not many WPI students have seen. Some certainly have, however, and we've got proof.

The flagpole atop the tower was taken down a few years ago, a victim of rust and old age, and with its removal ended a tradition of students who had the job of raising the flag. With the renovation of Boynton, we had occasion to wonder just what was up in that tower room, now reachable only by ladder from the third floor. So we climbed.

We found a bright, airy room with windows on three sides offering a fine view to the south and east of the WPI campus. We found an old doorway leading to a truly ancient stairway that went still further up into the dark upper recesses of the tower, leading to the clock mechanism, powered by a small electric motor driving four large shafts, one for each face. And beyond that, a series of steps that, frankly, I didn't care to try to climb. I'll leave that for the birds that were flying in from the outside.

Retreating to the bright room whose walls were being renewed, I noticed that one corner, near the upper stair door, hadn't been touched, and it contained an authentic record of some WPI history. For there, written in pencil and pen, were signatures and comments written by the generations of students who had climbed the tower to raise or lower the flag (or for other purposes, too).

Among other moments recorded on those walls were:

A November 8, 1957, overflight of the second soviet satellite, "Muttnik."
The flag's being at half-mast for 30 days following the assassination of John Kennedy.
Another half-mast period, this for astronauts Grissom, White, and Chafee, who died in the Apollo fire in 1967.
Numerous trips by students with guests (mostly female).
A visit by at least one current member of the Board of Trustees, Robert C. Stempel, '55.
And at least one "overnight," this by Joe Y. (?) and Gordon F. in 1960 (?).

This is the heart of the tower clock. It is simply too dark inside to photograph the rest of the tower insides.

Fall Sports

by Mark Mandel
WPI Sports Information Director

The 1979 Fall sports season reflected the state of the art at WPI. Although still in a state of transition, WPI has been building an athletic reputation that is worthy of its academic standards. The achievements of this fall's teams have only enhanced that reputation.

By defeating Hamilton 21-6 in the last game of the season, WPI finished with its best football record (3-5) since 1972. And although a 3-5 year is not ordinarily something to rave about, a closer inspection of the season reveals a great promise for the years to come.

It was both a frustrating and a satisfying year for head coach Bob Weiss. The season's opening game roster included 51 freshmen out of a total of 84 players. It was clear from the start that WPI's chances were contingent on how fast the youthful team would mature. The aging process may have been excruciatingly slow for Weiss, as the team lost four straight, frustrating games that could easily have gone the other way with a break or two. Finally, late in the season, the Engineers began to show that they were learning what they needed. WPI won its last two games.

Especially encouraging was the play of quarterback Bob Montagna, who came on strong after a slow start and proved himself an effective runner, passer, and team leader. His performance in the season-ending victories earned him two ECAC Honor Roll selections. Only a sophomore, Montagna will be back next year, along with a fine supporting cast of players.

From the defense, which played well all season long, thirteen linemen, five linebackers, and all but one starter in the secondary are expected to return in 1980. The offensive team will have fourteen linemen returning, plus every backfield member except the talented Mike "Smokey" Robinson.

"We are definitely on target," said Weiss after the season. "To think that we won more games than we have since 1972, and considering that we came close in four others, makes me believe that our returning team can set its goals higher in 1980. There's no question that we'll miss our senior leadership," he added. "Tri-captains Pete Kelleher (honorable mention All-New England), Jeff Rosen (Jewish All-American), and Bob Yule did an outstanding job for us this year. But I feel that they've laid a strong foundation for the younger players to build on."

The highlight of the fall season was the 9-3-1 performance by the Engineer soccer team. Although it was not exactly a rags-to-riches story, the team played far beyond the expectations of everyone, including head coach Alan King. The 1979 season was expected to be a "rebuilding" year for WPI, which had a 4-7-1 record in 1978. Instead, it became the year that the Engineers earned the highest ranking any WPI team ever achieved, an honorable mention in the Top Ten Division III teams *nationwide.*

It was also the year that the team would be rated as high as ninth in the New England soccer poll, and go on to earn a second seed in the NCAA Division III New England Tournament. WPI lost in the first round of that tourney, 2-1 in overtime to Brandeis, but the team was still selected as the Number I Division III team in New England by the New England Intercollegiate Soccer League. At the same time, Alan King was selected as the coach of the year.

"The selection as New England's best Division III team is justified," says King. "The team's performance throughout the year was outstanding. I'm thankful for the coach of the year award, but a coach is only as good as his players. You can't produce a winning team without the complete cooperation of the individuals."

First and foremost among those individuals was All-New England Leo Kaabi, who led the team both on and off the field. Kaabi scored 17 goals and had six assists to put him in third place among WPI's all-time single season scorers.

The 1979 cross-country season started out on an ominous note in the annual city meet with Assumption, Clark, and Worcester State. A sick captain John Turpin collapsed with just 400 yards to go after he had been leading the race. Turpin did not finish, and WPI settled for second place (by one point) to Assumption.

Things went downhill from there, as Turpin took longer than expected to return to top form. The Engineers chalked up seven losses in a row. Finally, though, with Turpin leading the pack, the harriers finished strong by beating their last seven opponents, including a season-ending victory over Bates, Tufts, MIT, and Bowdoin in a quad-meet. Head coach John Brandon's men finished the season with an 8-8 record.

The women's tennis team, coached by Marcia Kennedy, was very successful in its first outing as a varsity team, chalking up a 7-2 season. The two losses came at the hands of Assumption and Brandeis, both of which had representatives in the finals of the AIAW (Association for Intercollegiate Athletics for Women) championships.

On the season, Lisa Longwell, a freshman, was a standout, posting a 6-3 reecord as a first singles competitor. Deborah Biederman, another freshman, was 7-2 as the second singles player.

The women's volleyball team, also in its first year as a varsity sport, did not fare as well. Seniors Elaine O'Neill, Cathy McDermott, and Colleen O'Connor played well, but the Engineers could only post a 6-11 record.

WPI's new head man at ASME

by Ruth Trask

HONOLULU. TOKYO. MANILA. Jakarta. Peking. Leisurely tourist stops on a Far Eastern pleasure tour? Not for Prof. Donald N. Zwiep, head of the WPI's Mechanical Engineering Department and current president of the American Society of Mechanical Engineers. For Don Zwiep, those exotic locales, plus a wide variety of U.S. cities, coast to coast, have been a part of the working itinerary and rigorous travel schedule he's followed since being installed as ASME president last June. For the past six months, he has represented the ASME in this country and abroad and served as a U.S. delegate and negotiator for a number of important international engineering agreements.

"I am finding my term in office most rewarding," Zwiep says. "In the Far East, for example, we were able to sign several agreements of cooperation that should prove beneficial to the Society and the profession in the future. The trip was especially enjoyable because my wife, Marcia, was able to go with me."

On Friday, November 2, Don and Marcia Zwiep and Dr. and Mrs. Rogers Finch (executive director of ASME) flew to Kauai, Hawaii, to attend the annual conference of the American Consulting Engineers Council, at which they were special invited guests. Zwiep addressed the group, emphasizing a reaffirmation of ASME's position of cooperation with ACEC and similar organizations. After an afternoon of sightseeing, the travelers attended the ACEC banquet at which they were entertained by a demonstration of the historical development of the island through fashion and the hula.

The next day, Don met with the Hawaii section of ASME in Honolulu, where he presented the 27-year-old group with the Centennial Charter and honored the immediate past chairman of the section. "Being involved with this meeting gave me a strong feeling of achievement. The ASME is doing some of its operations in just the right way."

On Monday, November 5, Zwiep and his party left for Tokyo. They especially wanted to meet with the ASME members in the Tokyo area to get their ideas on how the Society could better serve its members in foreign locations. One of the group's objectives was to negotiate an agreement of cooperation with the Japanese Society of Mechanical Engineers (JSME). This type of agreement provides for exchange of publications and other information, professional assistance to traveling engineers, and other types of cooperation that will benefit both the organizations involved and their members.

Don recalls his arrival in Tokyo: "I suppose each visitor to a foreign country has a series of special impressions thrust on him. My case was no different. Imagine my surprise when I stepped from the loading dock of the plane to see my name flashing on the bulletin board. I reported at the information desk and received a message that the assistant secretary of JSME had arranged our transportation to Tokyo and would meet us at the baggage area. We rode to Tokyo in one of the finest buses I've ever been on (General Motors, beware!) in terms of seating comfort, vision, quietness, and cleanliness. Needless to say, I was favorably impressed. And while Tokyo seems overwhelmed with traffic, everyone seems patient, and the movement of the cars takes place in orderly fashion. But air pollution seems serious."

After eight business hours with the JSME, six hours of ceremonial activites concerning the signing of the agreement of cooperation took place at Happo-En, a Japanese garden restaurant complete with music, chopsticks, floor cushions, and traditional foods.

The next destination was Manila. Although the ASME representatives had been treated cordially wherever they had traveled, they were still not prepared for the welcome awaiting them in the Philippines. They were met at the airport by 25 cheering members of the Philippine Society of Mechanical Engineers (PSME), a large banner, flower leis and corsages, and a battery of TV cameras.

"At the Manila Hotel, a PSME tailor measured me for a 'barong tagalong' and Marcia for a long, embroidered gown," Don recalls. "He was to make the clothes overnight and deliver them at 5 p.m. the next day, because we were to wear them to a banquet that next evening. Not only did the outfits arrive on time — they fit!"

The following day involved a variety of activities, including a meeting with the commissioner of licensing for all professional, technical, and skills groups, ranging from barbers to doctors to engineers. They went sightseeing, then met with PSME to finalize the agreements. At the banquet, the agreements were signed, the speeches were appropriately flowery, and the spirit of cooperation was gratifying. During the festivities, the PSME presented Don with an elegant bronze and red velvet plaque.

After the Philippines, it was off to Singapore, the most comfortable flight of the entire trip (courtesy of Singapore Airlines). Singapore was a catch-your-breath stop, and the travelers stayed at the world-famous Raffles Hotel, a bit faded but still having a touch of its elegant, historic past. Then it was on to Jakarta, Indonesia, for the World Federation of Engineering Organizations (WFEO) Conference, with Zwiep serving as one of the ten U.S. delegates. He attended the WFEO seminar on engineering needs and one on technology transfer. On November 15, Indonesia's Vice President Malik officially opened the conference, whose theme was "Food, Transportation, and Energy" in relation to the less developed countries. During the proceedings, another agreement of cooperation was signed. The conference bore other fruit, too. Says Don, "During our meetings, I found enough IQP topics for WPI students to last the next ten years!"

While in Jakarta, the Zwieps and the Finches stayed at the year-old Mandarin Hotel, which was "absolutely splendid" even though located in a hot, poor city. The old rickety buses and bicycle carts were in sharp contrast to those they had seen in Japan.

The Indonesian conference finished, the group returned to Japan, where the 100th anniversary celebration of the Japanese Society of Engineers was in progress. "This was an important occasion, and a particularly relevant one," says Zwiep, because the ASME starts its own 100th anniversary celebration in 1980."

The Crown Prince and Princess of Japan were present during the anniversary activities. The royal pair greeted the Americans in English and capped their welcome with handshakes instead of the traditional bows with which they had greeted the Japanese guests present.

Once the formal festivities were completed in Japan, the travelers took to the air again (!). This time the destination was Peking. In China, the ASME representatives were to meet with the top officials of the Chinese Mechanical Engineering Society.

"We were rather worried, because our plane arrived in China ahead of schedule," Zwiep recalls. "We just didn't know what to expect." Early or not, the Chinese rolled out the red carpet for their American visitors. They provided an interesting itinerary and transportation to the Peking Hotel. Obviously their arrival had been preceded by a "letter of introduction" from a Chinese government agency. "The night before Thanksgiving, we were treated to dinner with five Chinese engineers and directors at the renowned Peking Duck Restaurant," Don reports. "It was really memorable. We were told that there are actually two Peking Duck restaurants in the city. One, located near a hospital, is called the 'sick duck' by the locals. They didn't take us to that one," Don says with a grin. The meal began with a covered cup of tea, then many courses of food delivered to the center of the table for all to help themselves with chopsticks. The meal ended with soup and fruit.

Accorded VIP treatment as first-time visitors to the Chinese Mechanical Engineering Society, the travelers were allowed to visit the fabled palace in Peking's Forbidden City without the customary red tape. They also toured the Machine Tool Research Institute, about 75 miles outside of Peking, a trip that required a special visa. Says Don, "there were no photo restrictions of any kind, and we saw a lot of the countryside. Inside the Institute, everything was quite up-to-date, except for the microprocessors and computers. The guides explained that the repressive 'Gang of Four,' since tumbled from power in China, was responsible for the shortcoming."

Meanwhile, Marcia and Mrs. Finch were invited to go on a kindergarten tour. Children from about two to seven attended the school, which was part of the Machine Tool Research Institute. The American visitors were met with a sign in English and Chinese. Their interpreter was a female mechanical engineer who had been educated in Russia about 30 years ago. A five-year-old boy sang "Do-Re-Mi" from "The Sound of Music." *(Editor's note: This particular song seems to be the song which schoolchildren sing to American visitors in China. I wonder why?)* Several children danced and sang, and little girls offered the guests candy. "They were utterly charming," comments Marcia, herself a former school teacher, "and obviously had rehearsed many hours for their show to us."

Both Marcia and Mrs. Finch were impressed with the teacher-student ratio at the kindergarten: 23 teachers for 100 students! The school rooms were divided up according to the age of the pupils, with each age group having its own room. "Every room had a picture of Mao on the wall, a table, chairs, a pump organ, cribs, and blankets," reports Marcia. "The children ate, played, and napped in their own areas. Everyone wore heavy, quilted jackets to ward off the cold inside the rooms."

"We were something of a novelty," Marcia confides. "We were told that we were the first outsiders ever to visit the school. The children were cautiously friendly and extremely well behaved.

At Tsing Hua University, a technically oriented school like WPI or MIT, the visitors toured the mechanical engineering department. Again the computer deficiencies were evident, but the holograph and laser measurement techniques were not only good, they matched the best one could find anywhere. "There were several current engineering magazines about," says Don. "One, the *ASEE Journal*, had Dr. Finch's picture on the cover. And the staff had heard all about Norton Company." The university library had a noticeable lack of technological books, because there had been no purchases made during the Cultural Revolution from 1966 to 1976. The Chinese engineers are familiar with Marks' *Mechanical Engineering Handbook* and similar classics of the field. The Chinese professor who served as their guide, Prof. Zhang Guanghua, met them again at the ASME winter meeting two weeks later.

The VIP treatment continued. The guests ate 12-course lunches, saw a colorful, masked Chinese opera, and visited what is still surely one of the wonders of the world, the Great Wall of China. A Chinese government yacht was at their disposal for a trip around the Peking reservoir. They had an interpreter at all times.

"It is very cold in Peking in November," Don says. "The hotel was heated, but our meeting rooms were not. We had to keep on our overcoats, just like the people do in their homes. But I really enjoyed their custom of continuously serving hot tea at all of our meetings. The airport and the planes are unheated, too, until they cross the Chinese mainland."

Zwiep describes the city of Peking itself as much less colorful than its American counterparts, because there are no flashy neon lights or colorful dress. The people wear dull looking, regimental-type clothes of blue, green, or gray material. A child's jacket or a scarf provides an occasional splash of color. There are lots of bikes and semi-trailer passenger buses, very efficient people carriers.

Oddly, for a nation seemingly committed to mass transit, China does pride itself on its manufacture of a few black limousines. "They look like a cross between an old Buick Roadmaster and a current Cadillac Fleetwood," says Don. Riding in or driving an automobile is a privilege reserved for the few. "If anyone is fortunate to own a small, personal car, he shines it at each and every opportunity."

There is virtually no unemployment, according to Zwiep. "China is fifty to one hundred years behind the rest of the world in agriculture production, although changes for the better, including some modern tractors, were in evidence. However, much of the work still has to be done by hand. That keeps everyone employed."

Before leaving Peking for Japan and the flight back home, Don helped work out arrangements for a representative from the Chinese Mechanical Engineering Society to attend the ASME Emerging Technologies Conference next August. The fundamentals of an agreement of cooperation were developed. The Chinese were to consider further, and they stated they were confident the agreement would be signed in a year or two.

In his meetings with top engineering officials of China, Don feels they want sophisticated technology such as computers, seismic gear for oil exploration, and satellites. "But they are geared to do their own development and production of this hardware, even if it takes a longer time. They want a fully self-sufficient country."

FOR THE MOST PART, the travelers' flying time had been pleasant if somewhat tiring. They encountered no particular problems until their return flight from Tokyo to New York. "Ten minutes from JFK we ran into a freak storm," Don recalls. "After a fourteen-hour flight from Japan, we had to circle Kennedy Airport before being sent on to Dulles (in Washington, D.C.) because we were getting low on fuel. When we finally landed, we'd spent about 32 hours time in the air and at airports."

Don Zwiep, however, was predictably unperturbed by his 32-hour flight experience. During World War II, he served in the U.S. Army Air Force as a pilot and crew commander of a B-24 bomber. He completed 59 combat missions and "Hump" flights while serving with the 492d Bomb Squad, 7th Bomb Group, in the China-Burma-India Theatre. A former member of the Air Force Reserve, Don retired with the rank of lieutenant colonel after 22 years of reserve duty. A little matter like extra air time should hardly faze him.

Zwiep reverts to Air Force vernacular when describing his duties as president of the American Society of Mechanical Engineers. "I stick to a strict flight plan," he declares. "Personally, I find there is a similarity between serving as a bomber commander and serving as president of ASME. In each case I'm involved with policy, and, following that, I try to carry out the designated plan of operations to the best of my ability."

Historically, ASME has been run by a consensus derived directly from the membership. Zwiep feels that he is a part of that consensus, but that as the temporary (one-year) president of ASME, his primary function is to implement and articulate the policies of the Society and to preserve its technical eminence. The directions he moves in are those that have generally been determined by the majority of the membership.

He does have a pet project that he likes to promote within ASME, though. "I feel strongly that one of the highest honors that an engineer can attain is recognition by his peers," comments Zwiep, who served as chairman of ASME's Honors and Awards Committee for three years. "For this purpose, ASME over the years has established a number of honors and awards — many underwritten by corporate or foundation sponsors — usually named after a prominent ASME member. The trouble is, during the last ten years the Society's membership has almost doubled, but the number of awards has not. Therefore, it seems to me that if we are going to provide more incentive to achieve within our membership, one of the priorities we should concentrate on is finding new sources of sponsorship to help us expand the system of honors and awards. As I continue in office, I shall focus many of my efforts in this area."

Expansion of the ASME achievement awards program has been only one of a long list of concerns Zwiep has dealt with during his presidency. "Until recently, Alaska had no regular ASME section," he says. "Now it has both a regular section and a student section." In September, Don was in Anchorage to present the ASME charter to the Alaska Section. All 50 states now have regular and student sections.

Currently, ASME has 95,000 members and a total of 200 sections. "In 1980, as we celebrate our 100th anniversary, a new Centennial Section will become part of the Society," Zwiep reports. "In the early 1980s, we are projecting an overall expanded membership of some 100,000."

Although President Zwiep enjoys helping build up membership in the ASME, he also deals with the South American and Central American engineering societies (UPADI) on a good-will basis. "We have met with their representatives to discuss the transfer of technology to less technically developed nations," he says. "We do not, however, plan to move the ASME into their territory." Other delicate negotiations are in progress between the ASME and the Canadian Mechanical Engineering Society.

Don Zwiep, although besieged by a hectic time table, would be the first to admit that his schedule contains few dull moments. For example, one week he may be out West visiting the regular and student chapters of ASME ("a great learning ground for a president-elect"), and the next week he could be attending the dedication of a national historic mechanical engineering landmark, such as the Drake Oil Well in Titusville, Pa. At WPI he turns up in his dual role as head of the ME department and president of ASME to speak on "Perspectives in Mechanical Engineering" during the Carl Gunnard Johnson Memorial Colloquium series.

Then Zwiep may be traveling to a legislative forum in Washington, D.C., where he meets with Senator Byrd or the head of the National Science Foundation; to an ASME meeting in Salt Lake City; to a landmark ceremony for the EERBI reactor in Idaho; to an Applied Mechanics Conference in Niagara Falls, N.Y.; and on to another ASME meeting in Atlanta. After meeting with the American Society for Engineering Education in Baton Rouge, he attends a meeting of the Founders' Society of Presidents, followed by a trek to Des Moines for an Interim (regional) Conference of ASME. At last, he heads to his office in the ASME headquarters in New York City to do battle with the Society's $18 million budget.

In September, he confers with the Engineers' Joint Council, the Centennial Steering Committee, the New York Section of ASME, and the Finance Committee. On September 29th, he receives a "roasting" and a reception, including a two-inch thick pine plaque studded with four lucky horseshoes from the Worcester section of ASME. The plaque says, "Keep Pitching, Don." (Zwiep is an old hand at winning the WPI ASME student section horseshoe pitching contests.)

His October diary notes a meeting with the ASME Council to recommend and discuss changes for Society structure in its second century; a bout with laryngitis in Atlanta; and a Zwiep talk about energy on TV in Charlotte, N.C. In Los Angeles, he is slated to give a paper at the Engineers Council for Professional Development dealing with the AAES, an engineers' "umbrella" society. Other stops are in Hot Springs, Virginia; Buffalo, where he presents a paper; and back to New York City, where he presides at a banquet.

By now it is November, and Zwiep is off to headquarters for two days of meetings prior to his Far East trip. "For me, the Executive Committee meeting was of strategic importance," Don confides. "That group, on behalf of the ASME Council, approved a model document which later enabled Dr. Rogers Finch and me to negotiate agreements of cooperation with the mechanical engineering societies in the Philippines, Japan, and Indonesia." He looks out his window, thoughtfully. "Less than two years ago, I never imagined I'd be in a position to handle such an undertaking. Being president of ASME has some real rewards."

HAVING A DEPARTMENT HEAD serve as president of a national engineering society has also been rewarding for WPI. There is both high prestige and high visibility in the position, and it carries with it an intrinsic amount of good will that cannot help but rub off on WPI. In recognition of Zwiep's notable achievements and contributions, the WPI Alumni Association honored Don and his wife at a reception at the Hotel Statler in New York City during the ASME winter annual meeting on December 3. Among those on hand for the festivities were WPI President Edmund Cranch, Vice President Thomas Denney, and Association Secretary-Treasurer Stephen J. Hebert, '66. "The reception was most enjoyable," says Zwiep. "We saw a number of recent graduates whom we hadn't seen in some time, and we also met some new friends."

Although he was grateful at the response to his reception, Zwiep emphasizes that he is especially grateful to WPI for allowing him to adjust his schedule so that he could accept the post of president of ASME. "I also want to thank the members of the ME department, who generously adjusted their own schedules so that I could undertake my new duties," he says. "They have done a splendid job in my absence."

Did Zwiep campaign hard to become ASME president? "No," he replies with a smile. "I didn't campaign at all. When I was asked in April of 1978 if I would allow my name to be sent to the national nominating committee, I knew that I was probably in the running, along with six to ten other viable candidates. I was then asked to send a resume to the nominating committee, as well as a statement that I would serve if elected. My selection as president-nominee was a complete surprise, for the nominating committee is always sworn to total secrecy. I didn't learn that I had been selected until the final announcement was made at the summer annual meeting in Minneapolis in the middle of June, 1978."

The American Society of Mechanical Engineers, it would appear, subscribes to the old saying, "When there's an important job to be done, give it to the busiest person you know." Zwiep's whole life has been busy, filled with accomplishment and achievement.

DONALD N. ZWIEP began teaching mechanical engineering in 1951 at Colorado State University. Prior to joining the WPI staff, Zwiep worked full time as a landing gear design engineer on the B-50 and MX-839 aircraft for Boeing in Seattle. He served with the U.S. Army Corps of Engineers in Cheyenne, Wyoming, in the design and construction of the local municipal airport.

Zwiep received his MSME from Iowa State University. In 1957 he was named professor and head of the ME department at WPI. By 1965, his professional accomplishments had grown so much that WPI awarded him an honorary doctor of engineering degree. For several years, in addition, he was co-head or acting head of the management engineering department.

He became a member or chairman of numerous academic and administrative committees, including the Institutional Committee on Evaluation of Engineering Education (1953) and the WPI Presidential Selection Committee in 1968. In October 1978 he was in charge of inaugural proceedings for President Cranch.

Professor Zwiep was the driving force behind the acquisition of WPI's nuclear reactor, and he organized its staffing and educational use. Presently, he is involved with the administration of the nuclear reactor facility, and he has served as on the Alden Research Laboratory Advisory Board.

In the classroom, he has taught in almost every area of mechanical engineering, but with principal emphasis on kinematics and machine design, along with metallurgy and thermodynamics. "Even with my responsibilities at ASME, I continue to teach in the senior seminar course," he declares.

Still active in consulting work, Zwiep is also chairman of the Board of Trustees of the James F. Lincoln Arc Welding Foundation of Cleveland, and serves as director of their award programs. He is particularly pleased with the Foundation's Engineering Design Competition. "Hardly a year goes by," he reports proudly, "that a WPI student doesn't win an award."

In his spare time, Zwiep reviews books, appears as an expert court witness, serves as a member of National Science Foundation review panels, and as a state science fair judge. He has directed three NSF-URF research projects and done outside consulting.

One of his articles on engineering education has appeared in a publication in Puerto Rico, while some 28 short articles on popular mechanical engineering topics were published in the *Grolier Encyclopedia* and the *Encyclopedia Americana*. He has been published in the *Massachusetts Society of Professional Engineering Journal* and in the publication of the Providence Engineering Society. His papers have been presented at the ASEE annual conference and at a meeting of the Eastern College Placement Officers.

Professor Zwiep has received a wide variety of professional society, educational, and Air Force Reserve citations and awards. Throughout the country, on many occasions, he has been an invited speaker on engineering education topics. A registered professional engineer in Colorado and Massachusetts, he also belongs to Pi Tau Sigma, Sigma Tau (honorary), Omicron Delta Kappa, Sigma Xi, Tau Beta Pi, and Skull.

He is listed in *Who's Who in America, Who's Who in Education, American Men of Science, Engineers of Distinction,* and *Outstanding Educators of America.* Within the local community, he has served as secretary and president of Torch International and is a member of the Worcester Economic Club and the Worcester Engineering Society.

HE TALKS ABOUT his stint with ASME with the enthusiasm and confidence of one who has been an active member and officer since his student days. First, he is a Fellow of the Society, the membership grade of high distinction given only to those with significant engineering achievements. Second, he has served the Society in many capacities, including that of national vice president of the Policy Board, Education, from 1972 to 1974, and concurrently as a member of the Council, the Society's governing body. In 1973 he also served on the Council's Executive Committee. A leader in the organizational structure and development of ASME, he was chairman of the working party on the Society's educational goal, was a member of the long-range study group, and, since 1975, has been a member of the Committee on Planning and Organization. He is past chairman of the National Mechanical Engineering Department Heads Committee, and he has been chairman of the General Awards Committee.

Although recognition of members' accomplishments (an important personal concern of Zwiep's), is a vital part of ASME, it is far from the main thrust of the organization, as Zwiep is quick to point out. "The ASME, while still adhering to its original objective of the dissemination of technical information to industry for the public welfare, is now a multi-faceted organization," he explains. "It is concerned not only with member interests, but with professional and public interests; its codes and standards operation is a principal example."

He feels that ASME volunteers, who establish codes and world standards for mechanical devices, save the U.S. government millions of dollars that otherwise would have to be paid to government consultants. "In this way, ASME works directly in the public interest."

ASME, now moving somewhat away from a strictly technical orientation, lobbies in Washington for laws to benefit the nation. For instance, an ASME Congressional Fellow is available to provide "white papers" covering such items as energy alternatives to various congressional committees working on specific legislation. (WPI Professor John Mayer was recently an ASME Congressional Fellow, and John Caola, '80, a student intern.) This type of assistance helps Congress make better-informed decisions on matters dealing with technology.

As president of the ASME, Zwiep encourages growth in membership by working closely with student organizations and industrial employers. At the opposite end of the scale, he also works to use the expertise and experience of the older members, many of whom have retired from active industrial employment. It is Zwiep's responsibility to see that the policies established by the all-volunteer membership are carried out by the paid 300-member professional staff at ASME headquarters in the United Engineering Center in New York. He must, of course, attend meetings of the ASME Council, its Executive Committee, the Committee on Planning and Organization, and various regional and technical committees, as well as the summer and winter annual meetings.

Prior to taking office last June, Zwiep visited nine of the eleven regions of ASME in the U.S. to review proposals for the summer annual meeting agenda. "Any member may propose any agenda item," he says. "It will be heard, receive a peer review and then additional reviews in the various sectional and regional meetings, and then a final disposition about inclusion in the national conference agenda." Some of the areas he visits on weekends in regard to these matters range from Boston to San Diego, Salt Lake City to Houston. Says Zwiep of his travels, "I serve as a spokesman for ASME, with or without portfolio."

His wife Marcia accompanies Don on many of his trips, for ASME encourages presidential wives to travel with their husbands. Some of the regions and sections the Zwieps visit have auxiliaries which annually give $70,000 for scholarships and loans to mechanical engineering students. "I am personally very grateful to the Society for these travel arrangements," Don continues, "as well as to WPI for allowing me to set up my schedule so that I can serve as president of ASME. The Society plans to further recognize those industries and colleges that allow staff members time off to hold national posts in the organization."

NOW THAT HE HAS BEEN president for half his term, how has Don Zwiep been conducting the affairs of the society? "I'm not a virtuoso," he answers, "but I do know who is performing well and who is not. My role is more like that of a conductor trying to keep things harmoniously productive."

Under Don's guidance, the ASME has started 1980 off on a harmonious note. It entered its first-ever float in the annual Tournament of Roses Parade. "We entered the $33,000 float to mark the centennial celebration of the Society. The West Coast section took care of the details, conducted the fund drive, and did a remarkable job!"

A major concern during the next few months will be the designing of a new governance system for the Society. "A lot of hard work is involved," he admits. "We plan to switch from a governing council plan to a board of governors system, and we must have some good answers for the members who ask, 'why change?'"

Until his year in office is over in June, Zwiep expects to be doing many "one-night stands" nationwide in conjunction with the ASME centennial celebration. He will make presidential speeches and sanction centennial charters for new student and regular sections of ASME. It is a foregone conclusion that he will continue to conduct the affairs of the Society with the dignity and dedication that has always characterized his leadership roles, whether they be with WPI or with ASME.

Zwiep has brought to his presidential post a set of high principles and a deep sense of responsibility. He believes what Herbert Hoover once said about his profession:

> "Engineering. It is a great profession. There is the fascination of watching a figment of the imagination emerge through the aid of science to a plan on paper. Then it brings jobs and homes to men, and adds to the comforts of life. That is the engineer's high privilege ....
>
> "He cannot, like the politician, screen his shortcomings by blaming his opponents and hope the people will forget. The engineer simply cannot deny he did it. If his works do not work, he is damned ....
>
> "But the engineer, himself, looks back at the unending stream of goodness which flows from his successes with satisfaction that few professions may know. And the verdict of his fellow professionals is all the accolade he wants."

The ASME has a special code it follows in naming its national officers: "Let the office seek the man, not the man the office." With the election of Don Zwiep as president of ASME, the merit of that code is plain for all to see.

Justice delayed

by Allan Sloan

If, as John Milton wrote, "they also serve who only stand and wait," HOWARD FREEMAN (WPI '40) and his company deserve a medal. They've been doing a lot of waiting—since 1958, in fact. That's when the Navy began buying Freeman-designed ball valves that allowed its fleet of nuclear submarines to take to sea. Rather than giving Freeman a citation—or, more to the point, giving his company some *money*—the Navy allowed its submarine suppliers to jump Freeman's patent. Hardly something to encourage capitalism or patriotism.

After asking the Navy — politely — to pay him, and being turned down in an administrative proceeding, Freeman and his company, Jamesbury Corp. of Worcester, Mass., sued the government in the U.S. Court of Claims in July 1963. Jamesbury has won every round. Yet the company has not seen a penny. If it's lucky, it will get its money around 1981. Fortunately for Freeman, Jamesbury, a well-run valve producer, has made enough money — $5.3 million ($1.57 a share) in its 1979 fiscal year — to afford to slug it out with the feds. Legal bills have run about $500,000.

Jamesbury's seemingly endless struggle to get paid is no small thing. There's the money, of course; the company would get about $16 million ($4.70 a share) pretax if its claim were granted in full today. But more important is what it shows about the legal system and about what's involved in suing the government for stealing a patent. Remember this: The Jamesbury case is relatively normal. The feds are not stalling. The suit Autogiro Co. of America brought against the government in 1951 for infringement of patents on its Autogiro (a preeursor of the helicopter) lasted a record 27 years, and nobody was stalling there either. Except for a four-year delay caused by extraneous factors, everyone has been trying to expedite Jamesbury's suit, now into its second generation of lawyers and judges. Imagine how long it would take if everyone were stalling.

Our tale begins in 1958, when Freeman, now 61, was a struggling inventor trying to make a living selling the world a better ball valve of his own design. It was just four years after he had left a good job with a Worcester company, taken $60,000 of locally raised seed money, and set up a small lab on top of a printshop. He was following his dream: a better ball valve. Ball valves have several advantages over globe valves, the kind found on most standard faucets. A ball valve operates by rotating a ball mechanism through a quarter turn, and will allow liquids or gases to flow in either direction. A globe valve generally takes several full turns to close, and is prone to squeaks, leaks, and faulty washers.

Enter the Navy, which couldn't find a globe valve to meet the requirements of its nuclear subs. Freeman, who'd invented the fog nozzle the Navy used on its fire extinguishers during World War II, had valve expertise and security clearances. He whipped up the necessary valves, lectured on the subject, and was properly thanked by a grateful Navy — until, of course, it came time to pay him.

That produced the 1963 lawsuit. In 1967 the judge ruled that Jamesbury's patent was valid and the Navy had infringed it. The government, naturally, appealed. Then came a bombshell: a Massachusetts lawsuit by the company that had acquired Freeman's previous employer claiming that Freeman had invented the better ball valve while he was still an employee. It took four years to dispose of that; then the case went back to Washington for a second trial. Jamesbury won, the government appealed. In 1975 the Court of Claims finally ruled that the Jamesbury patent was valid and had been infringed.

Then it was time for an accounting trial, to determine how much the government owed Jamesbury. But there weren't any records of Navy purchases of ball valves — after all, the Navy was buying submarines, not valves. Three years of tedious labor determined that, as best anyone could guess, the Navy had bought 100,412 infringing valves for $87.3 million. Federal attorneys agreed to those figures and said Jamesbury deserved $1.66 million plus interest. Jamesbury claimed $8.73 million, plus interest. The trial was held in July 1978, final briefs were submitted last June, and there's hope a decision will come down from Trial Judge Joseph Colaianni sometime this year. After Colaianni rules, someone will doubtless appeal to the full patent court, and then probably to the U.S. Supreme Court. If the Supreme Court refuses to take the case, Jamesbury might get paid in late 1980 or early 1981. If the Supreme Court hears the case or a new trial is ordered, who knows? None of this has attracted wide attention. Says Robert Miller, the Washington patent attorney who has handled Jamesbury's suit for the last five years, "Perry Mason-type situations don't happen here."

To find out what the delay has done to Jamesbury, *Forbes* dropped in recently to see Freeman in his Worcester headquarters. In spite of being shortchanged by the Navy, Jamesbury has done rather well. Its sales last year were $77.7 million and its earnings $5.3 million. Over a typical Jamesbury lunch — a salad from the employee cafeteria, served on paper plates with sugar wafers for dessert — Freeman indulged in a little proud reminiscence. "We were a two-bit little company in 1957," he said, "but we held the key to the success of the Navy's nuclear fleet."

Getting money after more than 20 years is better than not getting it at all. But Jamesbury isn't even getting a good interest return — the government began accruing interest at 4.75 percent in 1958 and is now paying just 8 percent on principal, with no compounding. Freeman makes a point of not complaining about how long he's had to wait for his money. Still, the Jamesbury saga amplifies the old adage: Justice delayed, especially at 8 percent with no compounding, is certainly justice denied.

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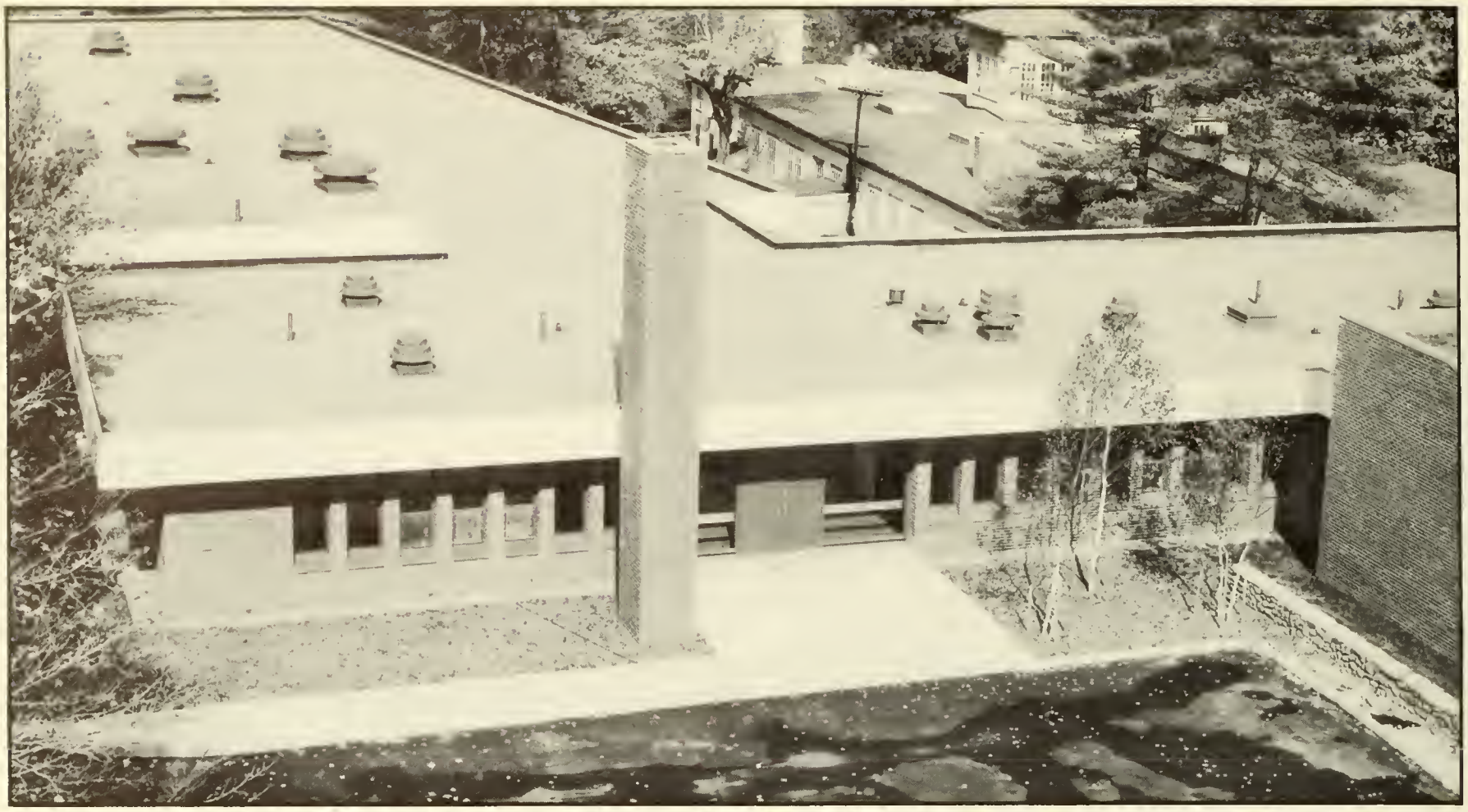

In 15 years, *Alden Research Laboratory, one of the most prominent hydraulic study centers in the United States, will celebrate its 100th birthday.*

The centennial has generated student interest in collecting records and artifacts of ARL's history and putting them together into a commemorative scrapbook. So far, it has been difficult to obtain much information, especially about the earlier years of ARL.

If any alumni can help out on this project, it will be greatly appreciated. If you have some interesting knowledge of events from ARL's earlier days, or perhaps some documents or records, would you please share them with the students!

Please write to Mark W. Scott, in care of The WPI Journal. *All documents and photographs can be copied and returned if you wish them back. Thanks very much.*

— Mark W. Scott, Christopher A. Hare, and John Gleftherakis

1914

Secretary:
Ellwood N Hennessy
The Phoenix Companies
680 Mechanics Bank Tower
Worcester, MA
01608

The invitation from Harry W. Tenney, Jr. '56 "Leadership Weekend Chairman" sent to me and 55 other class secretaries was accepted by this Class Secretary, "Bud" Hennessy, 1914. The workshop conducted by Steve Hebert and Russ Kay was most interesting to me, but when I looked around for the other 55 secretaries, to discover only about 15 or 20 present, I was greatly disappointed. There is something wrong with the situation as it concerns communication between alumni and their college, rather than with communication between alumni and their secretaries.

What surprised me most was that the College, under the name of the WPI Alumni Association went to the trouble and cost of printing up the blue Class Secretaries Handbook. I was truly pleased and amazed that someone has discovered that the college actually does want to hear from the secretaries of the older classes beyond the 50 year group. Yes, I believe that those old living members may still be of some use to WPI.

Everyone in my class knows **Horace Cole.** What they may not know is that Horace lives throughout the year in so many different places. Part of the time he lives in his home in Sharon, Pennsylvania. Another part in the summer time in his home at Wellfleet on Cape Cod, and in the winter time he stays at his club in Florida. Since your Secretary has a summer home in Falmouth on Buzzards Bay, the two of us try to get together for a good old-fashioned talk.

This year my wife, Dorothy, and I met Horace and his son, Dr. Richard Cole, for lunch at the popular Yarmouthport Inn on Route 6A. The reservation was for 1:30 p.m. As we went in the door, the hostess said, "Sorry you are three minutes late for your reservation so I couldn't hold your table!" However, in about five minutes she gave us another table. What a nice time we all had. Good food, interesting conversations and many interesting and delightful reminiscences.

I am sure that everyone who has been active in the Class of 1914 remembers the lovely home in Spencer, where our Class President, **Mike Dufault,** and his wife, Chris, entertained our group years ago. For a long period of years I have had business in Ware which kept me there twice a year for part of a day. On my way back to my office in Worcester, I would manage to arrive at Mike's home, just about in time for "Happy Hour." What enjoyable times we had in our talks with Mike and Chris and a sister of Chris, who was often there. Mike even kept my favorite brand of liquid in his kitchen for my entertainment.

But now Mike and Chris, because of poor health, have sold their home, and have gone to live with their widowed daughter in Wellesley. So I either correspond with him or spend $10.00 talking with him on the phone. To talk with Mike, however, is worth ten or twenty dollars anyhow.

Back in 1960, Mike and Chris, and my wife and I happened to be in Hawaii together, he in an apartment for the winter, and we in hotels for a month. There again we had wonderful times together because Mike always knew where to go and what to see to have a good time.

In the Summer Journal for 1979, I note that Edward A. Hanff, '10 of Pittsburgh died on February 16, 1979. This announcement is a sad one for me to contemplate. When I first entered Tech, I lived in a room next to his in a private home on Fruit Street. As an upperclassman he was very good to me, a mere freshman, so that we became good friends. I remember being greatly impressed when he told me he had a job for the coming summer that would pay him as much as 45 cents an hour. Such a high pay in those days was excellent.

On Monday, October 29th, I had a most enjoyable talk over the telephone with **Al** and Tillie **Crandon**. They have a lovely home in Little Compton, Rhode Island. My wife, Dorothy and I have had interesting and enjoyable visits in each of our homes. For a couple of years we also enjoyed each other's company in the Coonamessett Inn in Falmouth.

— "Bud"
Ellwood N. Hennessy,
Secretary

After 23 years of retirement, **Malcolm Campbell** is teaching again. He has been conducting a class of 27 in life history writing at the Hawthorne retirement community in Leesburg, Fla. Formerly, he had taught for 38 years at Dorchester High School in Boston. Active in the New England Biological Association, he was named president, and in 1938 represented the NEBA in the formation of the National Association of Biology Teachers. He became president in 1939, and attended the annual convention at Ohio State in Columbus. "We offered a year's membership and monthly issues of *The American Biology Teacher* for one dollar a year — and still ended the first year with a $300 balance!" In 1956, he was one of eight science teachers in New England to receive the Elizabeth Thompson Award for excellence in science teaching. Although he spent only a year at WPI, Mr. Campbell says it "was a most valuable step in my education." Later, he continued his education at Massachusetts Agricultural College, and decided to plant MacIntosh apples at his Harvard farm.

1915

Maurice Steele, historian of the Rome (N.Y.) Rotary Club, is currently writing a history of the 60-year-old club. He is also arranging for the third yearly consecutive reunion of his 1910 Harford (Conn.) Public High School class.

1918

Secretary:
John F Kyes, Jr
40 Holden St.
Holden, MA
01520

The **Maurice Richardsons** celebrated their 60th wedding anniversary on June 28, 1979. They were honored during the 60th annual Rotary installation dinner in Amsterdam, N.Y. Mr. Richardson was recognized by the club for his 37-year perfect attendance record. In 1961, he retired from Mohawk Carpet Mills (now Mohasco Industries), after serving 20 years as manager of engineering. He had been with the firm since 1923. Earlier, he had worked four years as a consulting engineer in New England. He is a Naval veteran of World War I. For 12 years he was executive director of the Amsterdam Community Chest (now United Fund). Four years ago, he retired completely. Last year he moved to a retirement apartment in Saratoga Springs.

1924

In September, **Warren Fish** received an Award of Merit in the nation's most prestigious competition for local history achievement from the American Association for State and Local History for his notable contributions to the cause of historical preservation. Nominations originate at the local level and are screened at the state and regional levels by a national network of judges. Only those nominees approved in the preliminary competitions are considered for national honors. Mr. Fish was one of 100 nominees. The American Association for State and Local History has given awards to local historians and historical agencies since 1944. It has a membership of over 6000.

After fifteen months, **Willard Gallotte** has completed a contract with Metro-Transit (Seattle) as a consultant coordinator between design and construction for a $46 million trolley-bus project. He pushed contracts for 26 small substations serving 55 miles of trolley. "It sort of boosts one's ego when out of the blue, at the age of 76, I was hired to help out by a firm that I had never worked for." He "retired" again at a luncheon attended by division and department heads and other colleagues.

1927

Secretary
William M. Rauha
4 Whiffletree Rd.
West Yarmouth, MA
02673

The **Harold Eastmans** celebrated their 50th wedding anniversary on Oct. 5, 1979. Mr. Eastman retired in 1968 after 19 years at Anchor Hocking and 22 years at Hartford-Empire-Emhart. "Forty-one years of business related to producing glass containers." The Eastmans now are "pleasantly situated" in Friendship Village, Columbus, Ohio.

1928

Secretaries.
Gifford T. Cook
Rte. 3 Box 294
Keyes Perry Acres
Harpers Ferry, WV
25425

Theodore J. Englund
70 Eastwood Rd.
Shrewsbury, MA
01545

Last March and April, **Andrew Maston** was at GE in Pittsfield, Mass., as an inspector for Alcoa on the repair of a large transformer which was needed for plant expansion. (He retired from Alcoa in 1971.) He writes of his GE stint, "In 1928, I visited the same plant on a WPI student tour. I guess fifty-one years between visits isn't overstaying one's welcome!"

1930

Secretary
Carl W. Backstrom
113 Winifred Ave.
Worcester, MA
01602

Representative.
Carl W. Backstrom

Dan O'Grady and **Carl Backstrom** have had a home and home golf match these last four years. One held at the Worcester Country Club and the other at Woods Hole Country Club at Falmouth, Mass., where Dan has just finished his term as president of the club. Carl continues as chairman of the Citations Committee at WPI, and attends all scheduled meetings as secretary of the class.

Roscoe Bowers writes that he has retired from the Weyerhaeuser Co., but is still called in on special assignments. So far he has moved 16 times for the company (Can anybody beat that?). He spends his summers in Vineland, N.J. and winters in Clearwater, Florida. Your secretary had a very nice round of golf with him last October in Marlton, N.J., and almost had another hole-in-one with him — only 4 inches away.

John Conley now retired, lives in San Diego, Calif. John has joined the Lions Club, and like so many retirees works as club treasurer, sight conservation chairman, hearing committee chairman, and budget chairman. This just leaves him a little time to play golf, and take care of his yard. He plans on being at the 50th reunion in June.

Ed Delano has to be the best letter writer of the class and is keeping us informed. He is still winning senior bike races, and is getting in shape for that 3100 mile jaunt to our 50th. He is planning on leaving Davis, California on May 1st, averaging 100 miles per day. Since his bike was totalled in a truck collision last year, Ed has ordered a new custom-built model for time trials. "It's the talk of the area," he says. It should be. It weighs 19 pounds and cost $1300!

Charlie Fay still works every day, but not eight hours any more. He now has three grandchildren: 2 boys and 1 girl. He is looking forward to the usual get-together at his house after the 50th in June.

Carm Greco writes that he did some traveling this past summer visiting Amsterdam, Brussels, Frankfort, and took a ride on the Rhine. Even though sundaes cost $4.50 in Frankfort, living conditions in the U.S. surpass foreign countries, he says. He'll see us all at the 50th.

Robert Hollick reports from El Cerrito, Calif. that he retired in April of 1978 from the Federal Power Commission. The mandatory retirement age is 70. Inspired by Ed Delano, Bob has bought a bike, but uses it only for exercise, not transportation to our 50th. Bob has lined up several relatives that he will visit while here next June for the 50th.

Jim McLoughlin recently celebrated his "happy sixth anniversay retirement from North American Philips Controls Corp., Inc." His current activities include serving as a member of the board of directors of Fort Nathan Hale Restoration Projects, Inc.; treasurer of the Citizens Park Council; and library volunteer for the New Haven (Conn.) Colony Historical Society. As a hobby, he collects vials of sand from U.S. and island beaches. "We've visited 39 so far."

Fred Peters: A very nice letter from Fred informs us that his last retirement was from Seton Hall University, where he taught management. He has just finished writing a book on book publishing which will be published in 1980. He was recently honored by Seton Hall, with the first edition of the University's "President's Medal" — Congratulations Fred!

He still lives in Springfield, N.J., but spends winters in Naples, Florida. He is also planning on being at the 50th.

Carl Backstrom: Secretary.

1931

Secretary
Edward J. Bayon
45 Pleasant St.
Holyoke, MA
01040

Representative
Oliver R. Underhill, Jr.
P.O. Box 281
Franconia, NH
03580

Carl Sage, still in the motel business in Buellton, Calif., and **Mike Sodano,** who is retired and living in Scottsdale, Arizona, had a short "reunion" in July.

1932

Representative:
Howard P. Lekberg
RFD 115 Main St.
East Douglas, MA
01516

Ted Barks has retired for the second time as director of operations for X-Rail Systems, Inc. He is now living in a new home in Amherst, Mass. . . . Recently, **Bill Reardon** was elected chairman of the Ellis Hospital board of managers in Schenectady, N.Y. He was first appointed to the board in 1971. Until World War II, when he served as a lieutenant commander in the U.S. Naval Reserve, Reardon worked for the TVA. After the war, he joined GE in real estate and construction operations. From 1966 to 1973, when he retired, he was manager of engineering and was concerned with the management of new facilities for GE throughout the continental U.S. He is a registered, professional engineer, a fellow of the ASCE, past director of the Building Research Institute of the National Academy of Sciences, and chairman of the Senior Elfuns Society of GE. The Reardons have two children and four grandchildren.

1933

Secretary
Sumner B. Sweetser
100 Pine Grove Ave.
Summit, NJ
07901

Representative.
Robert E. Ferguson
36 Lake Ave.
Leicester, MA
01524

Presently, the **Frank Eatons, Jr.,** reside in Port St. Lucie, Fla. . . . **Albert Glenn** of Millbury, Mass. writes that he is historian of the Bay Patriots Chapter PHSA (Pearl Harbor Survivor-Army), and has been connected with American Legion baseball, the New England Professional Golfers Association, and New England AAU track and field. He continues to hunt and snowshoe.

1936

Secretary
Harold F. Henrickson
1406 Fox Hill Dr
Sun City Center, FL
33570

Representative
Walter G Dahlstrom
9 Jewett Terr
Worcester, MA
01605

till with du Pont, **Carleton Borden** is currently the director of textile fibers in Wilmington. . . . **John Wyman** has been promoted to resident manager of the Maine facility, a research laboratory of the Maine D.O.T. in Pittsfield. He says, "I'm doing traffic engineering studies using electronic data collection and reduction techniques. Expect never to retire. Work too much fun!"

1937

Secretary:
Richard J. Lyman
10 Hillcrest Rd
Medfield, MA
02052

Representative:
Gordon F. Crowther
20 Bates St.
Hartford, CT
06114

Recently, **William Frawley** celebrated forty years of service with Bell Labs in North Andover, Mass. In 1939, he joined the company and was responsible for submarine cable development and the development of a method for laying communication wire from airplanes. He was also involved with mechnical design of communication equipment for the Signal Corps and other armed forces communication development work. In 1958, he became responsible for mechanical design of carrier equipment. Currently a member of the technical staff, he now deals with the physical design of the D3-D4 dataport units and the MX2-L lightwave system in the Digital Systems Physical Design Department. He holds an MSEE from WPI.

Fran Harvey has been named by Gov. King to a six-year term as a member of the Massachusetts Building Code Commission. In November he received a Brotherhood Award from the Worcester Chapter of the National Conference of Christians and Jews as the representative of the Roman Catholic faith. His award was presented "for your consistent contributions, your worthy leadership, and your unique ability to unite forces to improve the quality of life." The award, in the form of a plaque, was presented at the second annual awards dinner at Pleasant Valley Country Club.

1938

Theodore Andreopoulos serves as a contract engineer at Boeing for C.D.I. Corp. He is located in Bellevue, Washington. . . . **Ernest Gustafson** presently resides in Sun City Center, Fla.

Dr. **Arthur Martell** of Texas A & M University is the 1980 winner of the American Chemical Society Award for distinguished service in the advancement of inorganic chemistry, sponsored by Mallinckrodt, Inc. Announcement of the $2000 award was made at the Society's national meeting in September.

Prof. Martell, head of the Texas A & M Chemistry Department, is being recognized for his wide-ranging contributions to inorganic chemistry, as researcher, teacher, and author. His major research interests include the physical and chemical properties, stabilities, and kinetics of metal chelate compounds in solution, and metal-catalyzed biochemical mechanisms. As a teacher, he has supervised some 40 PhD students, many of whom have in turn become academic researchers. Two of his books, *Chemistry of the Metal Chelate Compounds* and *Inorganic Sequestering Agents*, are classics, as is his co-written compilation of two massive volumes of selected and critical tables of stability constants. He has written or co-authored 300 scientific papers and articles on his research. He founded the *Journal of Coordination Chemistry*, and is editor of the monograph, "Coordination Chemistry."

Dr. Martell has a PhD from NYU. He served a year as an instructor at WPI. For many years he was a professor and chemistry department chairman at Clark University. From 1961 to 1966, he was at Illinois Institute of Technology as professor and chairman of the chemistry department. Since 1966, he has been at Texas A & M, where in 1973 he was named Distinguished Professor. Among his honors are an honorary doctorate from WPI, an honorary life membership in the New York Academy of Sciences, a fellowship in the American Academy of Arts and Sciences, a Guggenheim Fellowship at the University of Zurich, and the National Science Foundation Postdoctoral Fellowship at MIT. He belongs to Sigma Xi and Phi Lambda Upsilon.

Dr. Martell will receive the ACS Award for Distinguished Service in the advancement of inorganic chemistry at the Society's 179th national meeting in Houston next March.

1939

Secretary
Charles H Amidon, Jr
636 Salisbury St.
Holden, MA
01520

Representative
C John Lindegren, Jr
21 Prospect St
Shrewsbury, MA
01545

While **Edward Dench** was with Raytheon from 1947 to 1978, he did a lot of things, "some even technical." He has a career total of over 65 patents in fluorescent lighting, computers, color printing, microwave tubes and heating, solid state, and ultrasonics. He holds an MSEE from MIT, and at one time was at Interchemical Corp. He was cited by the Office of Scientific Research and Development for technical contributions in World War II. During retirement, he enjoys the warmth of Florida and the Caribbean, fishing, boating, gardening, gourmet cooking, sightseeing, and swimming. He was a successful national chairman of United Way at Raytheon, and is on the board of a local company he helped to start. He has twin-daughter housewives, an attorney son, and ten grandchildren.

Last year, **Howard Duchacek** retired as professor emeritus from the University of Vermont, following thirty years of service. Previously, he had received his MSAE from Georgia Tech, had served in the Navy, taught at Norwich, and worked for Perkins Gear in Springfield, Mass. Also, he had been at Ohio State, Colorado State, Oklahoma State, NASA, GE, and the Naval Research Laboratory. He has had the "wonderful experience" of teaching young people in the areas of thermal science, fluid mechanics, and aerodynamics. Research included transient thermal shock induced elastic-plastic stress analysis. The Duchaceks have three children: Lenora, a clothing buyer; Howard, a building contractor; and Janet, a bank administrator. Hobbies are sailing Lake Champlain, keeping up with the kids, and maple syrup processing.

Although semi-retired, **George Graham, Jr.**, is still active with his own business, Warwick Copy Products, Inc., which wholesales a line of copy papers. Earlier, he was with St. Regis Paper, Oxford Paper, and Glidden Company. While with Johnson and Johnson, he did research in the field of paper and received seven patents. Formerly, he worked for Rohm and Haas, and served as a staff sergeant in the Army. He and Helen are the parents of Susan, who is married, with one son; George III, a physicist; Wendy, who is doing graduate work at Cornell; and Alan, who has a master's degree from Syracuse and is an associate programmer at IBM. Presently, Graham is secretary treasurer of the Warwick (N.Y.) Chamber of Commerce. His "claim to fame" is that he played bridge against John Crawford, when he was the world champion. Wife Helen is a legal secretary. She freezes or preserves all Graham grows in his garden.

Eugene Gravlin continues with Knapp Shoe Company, where he is vice president of the Safety Shoe Division in Industrial Sales. At Knapp since 1964, he had been employed by Kennedy Printing, Fuller Brush, Western Auto, and H. H. Brown. During World War II he was a major in the Army Corps of Engineers. Pat is 29; Paul, 27; and Eileen, 23. Ella has retired from Cardinal Cushing Hospital, where she was a night nursing supervisor. . . . **Jacob Hagopian** has been with IBM for 27 years. Before that, he worked for Northrop, Goodyear, Norton, MIT, and the U.S. Army. Along the way, he picked up over 20 patents in computer data storage and retrieval.

He has served as a church council member, school trustee, a fund raiser for "high causes," and a helper in election campaigns. The Hagopians have five grown children. Their grandson, Dana, 7, is the focus of their attention now.

Within a year after graduation, **John Harvey, Jr.** became a sales engineer in the Boston District Office of the Allen-Bradley Company of Milwaukee, a prominent manufacturer of electric motor controls and electronic components. The post turned into a 36-year career with retirement a couple of years ago. Currently, he is a consultant to the firm. "Along the line," he spent four years in the Navy, married, and had three daughters and two grandchildren. The Harveys are enjoying retirement living on the Cape with fresh air, sunshine, and boating.

Carl Hitchon tries to keep up in his study of French and German, and travels as much as possible. He is a director of a local savings bank. In 1959, he purchased a plant from Glen Woolen Mills, a former employer, and formed Glencairn Yarn Mills employing about fifty workers to make knitting yarn. Prior to being secretary and executive officer at Glen Woolen Mills, Hitchon worked for American Cyanamid Co. for several years. His daughter, Marilyn, is married and an interior decorator. His son, Carl, Jr., serves as a mathematician at Softtechon. The light of his life is his granddaughter, Tory, "who is very much her grandmother's image."

Along with **Wally Abel, Johnny Hollick,** and **Dave McEwan, Don Houser** joined United Shoe Machinery (USM Corporation), now part of Emhart Corporation, following graduation. After serving in machine design and armament development, he switched in favor of the commercial side of the business. He helped USM expand into machinery ventures outside of the shoe industry, then he became affiliated with the International Division. For 20 years, he has been involved with USM's Bostik Chemical Group and living out of a suitcase. Presently, he is vice president of administration, dividing his time between Massachusetts and Switzerland. He and his wife, Ethel, a fine golfer, have two sons: Bob, a Boston lawyer and Scott, "a budding insurance underwriter." Ethel is busy with community projects and competitive tennis. The Housers like skiing and sailing near their summer cottage in New Hampshire.

Harold Humphrey, Jr., writes that he is "now easing into retirement" via the Research Department at the Torrington Company. During his long career at Torrington, a subsidiary of Ingersoll-Rand, Humphrey has been a project engineer, chief tool designer, machine designer, assistant chief mechanical engineer, and chief mechanical engineer of the Needle Division. He has five daughters: Joyce, a world-travelled assistant lecturer; Judith, a teacher at York University, Toronto; Mary Lou, a graduate of Endicott Junior College and the mother of two daughters; Nancy, a free-lance writer and mother; and Kathryn, an LPN and ex-stewardess, who lives at home. All have attended various colleges. Humphrey has served in Harwinton, Conn. as chairman of the Zoning Commission, and is now chairman of the Board of Finance. He is chairman of the Central Connecticut Chapter of the Society of Manufacturing Engineers, a National Ski Patrolman, and was the Connecticut State Champion Equipped Driver (sports car road rallyist) for two years. He is also a motorcyclist and Porsche enthusiast. . . . **David Hunt,** who was an aeromechanics elective at WPI, with great hopes of building machinery to travel through the air, has instead spent his entire career with machines to move air through pipes. "From pipe organ blowers to nuclear power plant emergency exhaust equipment," from engineering to management. Marge and he have enjoyed traveling, much of the time on WPI alumni trips.

Bowling, cards, boating, biking, and gardening are favorite pastimes of **Roger Iffland.** He likes music, especially performances of the Yale Glee Club, because daughter Julie is a member. Joan and Nancy graduated from Central Connecticut. David, a Bridgeport alumnus, is a machine tool programmer, while Peter is at Northeastern. For 39 years, Iffland has been with a hometown company, the Torrington (Conn.) Company. He has served as night supervisor, machine designer, machine shop superintendent, and chief design engineer to the chief of mechanical engineering. The Ifflands have nine grandchildren. . . . **R. Adrien Jacques,** now with Concord Machine Tool Co. (importers of Spanish-made equipment), spends a lot of time in Michigan, Illinois, Ohio, and metropolitan New York. Previously, he had been with Pelham Machinery, Pratt & Whitney, and had served as president of Bailey Tool and Supply, Inc., and as sales engineer at Greenfield Tap & Die. During World War II, he served in the Navy aboard the Carrier "Wasp" as aviation ordnance officer in major Pacific operations until V-J Day. He has three children and five grandchildren. Pete, a Holy Cross graduate, is with Abex Corp.; Ann and her brother, Tim, help run her husband's industrial painting business. Jacques' wife, Pat, is director of sales for Pharmaceutical Marketers Directory.

After a short stint at Draper Corporation, **Gleason Jewett** spent 22 years with Wyman-Gordon, and eventually moved into the sales department in Texas. In 1955, he was named southwest district sales manager. Currently, he is technical representative for Standard Mfg. Co. in Dallas. Although he has worked for Petersen Mfg. Co. in Nebraska, and Brantly-Hynes Helicopter, Inc., in Oklahoma, the Jewetts "always have returned to Texas." A flight instructor (CFI), until recently Jewett owned an airplane. Once he was president of Sky Haven, Inc., a flight school and Cessna dealership in Nebraska. He and Marge, one of the five top in the nation in her age group in the AAU Master's Swimming Program, have two sons and one daughter. Jack is a top life insurance salesman; Bob, a Delta Airlines pilot; and Martha, a surgical assistant. There are seven Jewett grandchildren.

Samuel Kaplan says he "got into ecology before it became fashionable." After working for Harrington Richardson Arms, Pratt & Whitney Aircraft, Boston Ordnance-Small Arms Branch, and a hitch in the Air Force, he became concerned with a Vermont logging project. Ecology became important to him when he went into water well drilling and did consulting on wells, water systems, and water treatment. He serves as a member of the American Arbitration Association, and is called on as a professional engineer and state witness in that field. His "fun and games" is solar energy. He passed a course at Hartford Graduate Center, and he is involved in courses for geothermal heat pumps using well water ("52 degree temperature range constant") as a heat source. At his new dream house, he has a backup system for maintaining every system, including heat pumps. With his computer, he is compiling an underground water resource map from records he has kept for thirty years. Daughters Nancy and Laura are in the New York fashion world.

The **Carl Keysers** have "escaped" from Massachusetts and are now living in Rye Beach, N.H., where Carl continues with his writing. Over the years, he has written a number of textbooks, two of which were translated into Japanese and Spanish. "Both foreign language editions are easier to understand than the instructions for Form 1040," he declares. After mentioning Keyser's **Spare None: The Federal Octopus** in a broadcast, Harry Reasoner commented that the author didn't like *any* of our 20th century presidents. Says Carl, "He was wrong. Cal Coolidge was great!" In 1968, he retired as Commonwealth Professor Emeritus from the University of Massachusetts. . . . Following an eventful World War II with the Navy in the Midway, South Pacific, and Central Pacific campaigns, **Ed Kiem** returned to the U.S. and subsequent five command jobs. In 1963, he became Captain, USN (ret.), after which he joined North American Aviation for four years. In 1970, he earned his BA in math ("It took me 35 years!"). For several years, he taught math, until it began "interfering with my golf game." Once again retired, he enjoys travel and checking on his family.

Phyllis and **John Lancaster** hope to retire on a Grand Banks diesel trawler in 1981, after John's duties as assistant director of the National Radio Astronomy Observatory and as manager of its $78 million Very Large Array Radio Telescope Construction Program in New Mexico are concluded. They plan to cruise from the Virgin Islands to Canada. They have built a home on the fourth tee of the Socorro, N.M. Golf Course, where golf may be played year 'round. With their five daughters educated and married, they are currently enjoying a "near second honeymoon" in the beautiful west. Lancaster was the first nongovernment person to receive the National Science Foundation Medal for Meritorious Service. He has been listed in Who's Who in America. . . . For ten years, **Leonard Landall** has been with Thomas A. Buffum Associates of Boston as an executive search consultant. Earlier, he was with Frank C. Brown & Co., Draper Corp., Gamewell Co., Northeastern, and Raytheon. Son John, '71, built his own house in Grafton. Daughter Nancy is with an electronics firm, and Norma is in advertising. They are twins and graduates of URI. Leonard and Ruth have designed and built a home in Sandwich with a beautiful view of Cape Cod Bay. They live there 12 months a year.

Carl Lewin has worked for the Austin Company since 1940. He spent 12 years traveling the world coordinating international sales activities. The Lewins expect to retire in Maine in a few

years. They have three sons: a professor; a commercial pilot; and a telecommunications expert. Daughter Joan is a homemaker and school board member. The Lewins, who have nine grandchildren, have previously been involved with scouting and fund raising. . . . At the end of World War II, **Carl Lindegren, Jr.,** was discharged with the rank of Lt. Commander, USN. He then started a sales engineering business with his father, which involved selling hydraulic, pneumatic, and mechanical components in the New England area. "Have an inside and outside sales staff of 16 people, and enjoy the business immensely." There are four Lindegren girls (including twins), and a son, who is a student at WPI. The family has been active in ski racing, with Lindegren once serving as president of the local racing team. They also race sailboats, and Lindegren has been commodore of the Stage Harbor Yacht Club in Chatham, Mass. Their daughter, Debbie, was runner-up in the Women's National Sailing Championship in 1977. Lindegren is a current member of the WPI Alumni Board. He has served on the Shrewsbury Industrial Development Commission, and as chairman of the board at Fairlawn Hospital in Worcester.

In 1977, **Walter Longnecker** semi-retired from Gould, Inc., as vice president-international. After a two-year stint as a consultant, he is now completely retired. He had joined Gould in 1969 when the company he was with merged with Gould and "saw an exciting growth record from sales of $300 million to $1.8 billion in ten years." Earlier he had been employed at Morgan Construction for two years and U.S. Steel for 26. Walter and his wife are living the "good life" in Hilton Head Island, S.C., and "now watch the enthusiastic development of eight grandchildren.". . . Currently, **William Lyhne, Jr.,** is assistant director of Executive Compensation Services of American Management Associations, New York City. Previously, he was with Lone Star Industries, Handy and Harmon, and Bridgeport Brass Co., where he was employed for 25 years. He has nine daughters, three sons, and eleven grandchildren. Recently, he finished a term as president of the Board of Associates at the University of Bridgeport.

The **Arthur Mallons** of Alexandria, Va. live on 10,000 square feet of George Washington's former pig farm, and "Helen spends some of her time helping tourists spend money at the Mt. Vernon Gift Shop." A baseball fan, Mallon has been in nearly every big league city in 47 states. In mid-career, he spent 18 years teaching at Missouri School of Mines, Wentworth, Merrimack, and Tufts. Another third of his career was in private employment and engineering practice; and the remaining third has been in government employment, the last ten years being spent in the Construction Grants Program of the EPA. The Mallons have four girls, two boys, and five grandchildren "with two dozen degrees and professional registrations among us."

With Pratt & Whitney Aircraft since graduation, **Robert Martin** is presently with the firm in Belgium as head of engineering work with the European companies, who are coproducing the F-100 engine for the F-16 fighter. He is looking forward to returning home and retirement. He has three children and four grandchildren. Before going to Brussels, he served two terms on the town council in North Palm Beach, Fla. He and his wife, "Mart," bowl. ("She does better than I!") He also plays some tennis. . . . Continuing with Blake & Johnson Company, **Dave McEwan** is now headquartered in Beaufort, S.C.

Robert Mirick writes that he retired in 1972 and thinks "there is nothing to beat it." He had been president of Sanitary Farm Dairies, Inc. (milk and ice cream) in Minnesota and Iowa. Earlier, he was in the Naval Reserve, and had worked for the Pillsbury Company. He is a registered professional engineer in Minnesota and a master electrician. A former president of the North Central Milk and Ice Cream Association, Mirick has also served as a board member of the National Dairy Council, the Engineers' club of Minneapolis, the local Methodist Church, and the Audubon Society. He was chairman of the board of the Ramesy County Historical Society; treasurer of the Society of Mayflower Descendants (Minn.), and chairman of the board of governors of the Shriner Hospital for Crippled Children (Twin City unit). The Miricks have two sons and like to go motor home camping. . . . Over the years, **Robert Murphy** has worked at Pratt & Whitney Aircraft in plant engineering and at Westinghouse, Murphy Air Engineering and Automatic Refrigerating Co. Though semi-retired, he still works part time as a consultant and manufacturer of an air pollution control device for industry called the "Oil Mistress." He was widowed several years ago, and recently married Marilyn, a psychologist. They commute between Wayne, N.J. and Westerly, R.I., "half of the time." Murphy's hobbies are power boating and "criticizing the bureaucracy." He has two married children.

Also enjoying early retirement, is **John Newton,** who lives in Brunswick, Me. "These are the best years, with our home on the coast of Maine, children and grandchildren within visiting range, and our youngest daughter in high school." For years, he had worked for American Steel & Wire in Worcester. Both he and his wife Evelyn were "local actors," with Evelyn also working as an art teacher. Newton's earliest posts were at Stone & Webster, the Norfolk Navy Yard, and New England Power in Providence. . . . Most of **Albert Nims'** career has been associated with airborne Air Force radar systems at Westinghouse in Baltimore, Md. His wife, Betty, weaves, and he has designed and built several looms for her. They enjoy travel, have two daughters, and a "No. 3" daughter in Norway, who lived with them for a year through the American Field Service. They have visited "No. 3" in Norway. Their own daughters are nurses, one being a former Army captain, and the other a former Navy lieutenant. "The older one has provided us with two grandsons."

Presently, **Elmer Nutting** serves as design engineer in Smith & Wesson's new sporting products division. He had served 25 years with Noble Mfg. Co., which he left as vice president. During World War II, he worked for Savage Arms. Wife Doris is director of Volunteer Services at Cooley Dickinson Hospital, Northampton, Mass. Son Radley owns a six-man foreign car repair shop, and Susan co-owns vintage clothing shops in Colorado. The Nuttings have three grandchildren. They like traveling and tandem bike riding. A 21-year deacon of his church, Elmer has also been town moderator, a member of the water commission board, the finance committee, and the Industrial Development Financing Authority. The Newcomen Society is another interest.

After thirty years at Heald Machine, Worcester, **Bradford Ordway** retired in 1969. "Ain't done nothing" since. He and Dot have a son, Craig, an orthopedic surgeon and chief of trauma at Nassau County Medical Center on Long Island. They have a granddaughter and a grandson. For twenty years, Ordway was moderator and sometimes selectman in Holland, Mass., with Dot being chairman of the school board for ten years. Currently, the Ordways ski one third of the year, spend the second third at their Vermont house, and the last third, traveling. They have driven from Bangkok to Singapore, through the Australian outback, across the Yucatan Peninsula, and around Patagonia and the southern tip of South America.

John Peavey, although looking to a 1980 retirement, in Hendersonville, N.C., is now a chemical process engineer at American Cyanamid, where he has been since 1964. Earlier, he was with John H. Breck Company and A.G. Spaulding. In 1975, he retired as Lt. Colonel, Ordnance, after 23 years in the active Army Reserves. His wife, Ann, has been a member of the Westfield School Committee, and former co-manager of the Westfield State College Bookstore. Son William graduated from Colgate and Harvard and is in the industrial-residential carpet cleaning business. He is married and has a daughter. Michael, a Duke graduate, is a lawyer and also married. Louise graduated from Mount Holyoke and UMass, is a Latin and English teacher, and has a husband and a daughter. Charles graduated from Princeton and Stanford and is with McDonnell Douglas Aircraft. Peavey raises exotic house plants, makes Chinese furniture, and collects tools.

Still with Fraser Paper in Maine, **Art Rand** has, during his career at Fraser, worked in the paper mill laboratory and served as a technical sales service representative, and as head of the service group. He has also done research. Currently, he is director of environmental protection. . . . **Robert Steele,** until his retirement in 1976, was employed by du Pont, primarily at the Niagara Falls plant. At retirement, he was engineering services superintendent. During his last five years, he was in the Employee Relations Division developing a simplified wage structure and handling employee relations problems. Since retiring, Steele has been a part-time consultant. He is a professional engineer in New York and Ohio. He has served as president of the Niagara County chapter and as director of the New York State Society of Professional Engineers; as director of the Engineering Society of Buffalo; and as president of the Technical Societies Council of Western New York. He has been a church trustee, Sunday School superintendent, and financial campaign chairman. He is a Mason.
Editor's note: Steele's son, Bob, was a good friend of mine in high school.

Before retiring in 1966, **Frans Strandberg** concluded his career as a civilian engineer with the Navy, as director of construction of the Atlantic Underseas Test and Evaluation Center on Andros Island, Bahamas. He did a stint with the Army's Anti-Missile Program in the 1960's, serving on the team that selected the Sprint Missile for development. He spent four years at Thompson Wire, Worcester and in active duty in the Navy. Presently, Strandberg is an officer of the Dartmouth National Bank, Hanover, N.H. Since retirement, he's also been a church administrator, village engineer, and a condominium construction project manager. He is now elder of the local Lutheran Church in Enfield, N.H., and has served on the town hall renovation committee. Wife Elsie chairs the church Social Ministry Committee, sings in the choir, is secretary-treasurer of the area Ecumenical Council, and delivers Meals on Wheels.

Ernest Sykes, who taught engineering drawing at WPI after serving in World War II, worked on the construction of two churches near campus. Later, he worked for General Electric Realty Corp., on construction management needs at Appliance Park, Louisville, Ky., and the Atomic Power Lab., in Pleasanton, Calif., among others. Since 1961, he's been in plant engineering at the Lawrence Radiation Lab. in Berkeley, Calif., the site of the original "atom smasher." He's been concerned with problems of stable foundations and earthquake-resistant restraints, so has become the "in-house" expert at "rebuilding the variety of landslides that plague us (on campus) each winter rainy season." In 1974, he and his wife served as Volunteers In Service to America in the economically depressed area of northern New Mexico. . . . For over thirty years, **Gordon Thompson** has been a design engineer at G.F. Wright Steel & Wire Co., designing extremely fast wire weaving looms and processes. Early in his career, he was with Eastern Bridge Co. and Fiske Carter Construction Co. The Thompsons, who live in Worcester, have two sons and two grandsons. "We are proud grandparents."

Soon, **William Wadsworth** expects to retire from WPI to his 1300 acres of forest land in New Hampshire, where he plans to continue his research and consulting in acoustics and finish up some of his writing. He received his MS from WPI in 1941, and then joined the electrical engineering department. "Have been at WPI ever since." In 1957, he became a full professor. Since 1953, he has directed the WPI Acoustics Laboratory, along with teaching. The lab developed hearing protectors and communications systems for use in high level noise fields produced by jet aircraft. These developments led to five U.S. patents, the royalties of which helped support the laboratory. Wadsworth served on the National Research Council committee on helmets, and he belongs to IEEE, the Acoustical Society of America, Audio Engineering Society, and Sigma Xi. Besides being listed in *Who's Who,* he has been honored with the Worcester Engineering Society Award for Scientific Achievement. For "diversion" he coached the WPI tennis team for ten years.

Fred Webster, who spent 24 years teaching mechanical engineering at WPI, is enjoying retirement in Princeton, Mass. He and his wife, Ruth, travel to New Hampshire summers and to Wyoming and Vermont to see their grandchildren. Sometimes they go abroad. Fred has several hobbies. Ruth paints, weaves, and serves as a library trustee. During part of their thirty years in Princeton, Fred has had a term on the school committee and three terms on the advisory board. . . . Presently, **Robert West** is manager of product research at Stanley Tools, where he previously was director of product engineering. He has been at Stanley for 22 years. Earlier he was with Thayer Scale Co., Towle Mfg. Co., the Navy, and Heald Machine, among others. He holds 38 patents on hand tools such as tape rules, hammers, and levels. One of his most important is the basic patent for the Powerlock rule line, the biggest-selling rules in the world. Daughter Karen is married and the mother of Jennifer, 3. Son Lee is a civil engineer. West has been active in church work and scouting. His wife continues as a part-time nurse. Activities include woodworking, hiking, and travel.

Harold White, now back in the U.S. with Norton, recently returned from a seven-year stint for the firm in England. He has been at Norton for 33 years. He had worked for GE and the Factory Insurance Association earlier. "I was once too long in India and China with the U.S. Air Force." (Captain) Hobbies include antiques, woodworking tools, and American clock collecting. He likes to repair clocks and travel. "We have been throughout Europe, Asia Minor and Africa, but our favorite spot is Cape Porpoise, Me., for family gatherings." The Whites have three children: Patricia, a project manager at Ginn & Co.; David, a physiotherapist; and Catherine, a sales administrator; plus four grandchildren. Last summer the Whites attended the Queen's Lawn Party at Buckingham Palace.

George Yule, who owns the family business, Leominster (Mass.) Granite & Marble, and has run it since 1946, previously had worked for du Pont and Worcester Gas. The Yules have four married daughters and four grandchildren. Two of the daughters have nursing degrees and two have degrees in education. Their son Robert is a WPI senior, and was captain of the football team for two years. (Also, he's on the varsity heavyweight eight in crew.) Yule is a Past Master of the Masonic Lodge, and a Past Exalted Ruler of the Leominster Lodge of Elks.

After 20 years in aerospace, **Dick Wilson** continues in facilities engineering and administration for the Long Beach (Calif.) Schools, a post he enjoys and has held for over seven years. He is president of the local Rotary Club. He and Mae attended the Rotary International Convention in Rome in June. Also, he is serving on the Regional Policy Board and on a national committee of the ASME. He has been active in neighborhood associations, and has served as a school board trustee, scoutmaster, United Fund chairman, City Master Plan committeeman, and church treasurer. He founded San Clemente Canyon Park in San Diego. The Wilsons' daughter, Kathy, graduated from Berkeley and is an artist. Keith is an ME and project engineer, who has three daughters; Shelley is married and living in Norway; Ken, a former Rotary Youth Ambassador to England, is at Brigham Young University. Wilson hobbies are jogging, back packing, swimming, and conservation.

1940

Secretary
Robert E. Dunklee, Jr.
Rocky Hill Rd.
North Scituate, RI
02857

Representative:
Russell A. Lovell, Jr.
Jonathan Lane
Sandwich, MA
02563

Everett Smith, who is retired from U.S. Steel Corp., Electrical Cable Division, spends much of the year in Fort Myers, Fla. . . . Since last Jan. 2, Dr. **Michael Wales** has been senior research scientist at ABCOR, Inc., in Wilmington, Mass. He retired from Shell Development Co., Houston, Texas, in December of 1978.

1941

Secretary
Russell W Parks
7250 Brill Rd
Cincinnati, OH
45243

In October, **William Simmons,** chairman of the Sino American Cooperative Organization (SACO), led a group of 100 former U.S. Naval Group China World War II veterans and their wives on a two-week visit to Free China in Taiwan. The group, as guests of the government of Free China, visited in the Republic of China and observed progress of the ten great projects being implemented to modernize and industrialize the Republic. Meetings with top government officials and industrial leaders were part of the agenda. SACO is an organization devoted to friendship and continued contact with the Chinese Ministry of National Defense in the Republic of China. (Simmons is president of W. P. Simmons Company, Inc., in San Rafael, Calif.)

1942

Representative
Norman A. Wilson
17 Cranbrook Dr.
Holden, MA
01520

Donald Packard has joined Jahn Foundry in Springfield, Mass.

1943

Representative:
Robert S. Schedin
RFD #1
Brookfield, MA
01506

Dr. **Arthur Lindroos,** still with Penick Corporation, is now associate manager of engineering in Lyndhurst, N.J.

1944

Secretary:
John G. Underhill
6706 Barkworth Dr
Dallas, TX
75248

Representative:
John A. Bjork
11 Tylee Ave.
Worcester, MA
01605

Recently, **Alan Gault** returned from a two-year stay in Jordan, where he supervised the construction of a new airfield for the Jordanian government.

1945

Representative:
Robert E. Scott
Allendale Mutual Insurance Co.
P.O. Box 7500
Johnstown, RI
02919

Robert Chaplick says, "After thirty years with the federal government, I have retired." He had been an aerospace technologist at NASA's Goddard Space Flight Center, Greenbelt, Md. . . . **Howard Gerring** has become affiliated with Winslow-Smith Associates in Westport, Conn., where he is a senior associate. The firm handles professional placements. Gerring's area includes manufacturing and manufacturing support professionals, as well as engineering and technical support. He is chiefly concerned with placements in Connecticut, Westchester County, and New York City.

1946

Secretaries
M. Daniel Lacedonia
106 Ridge Rd
East Longmeadow, MA
01028

George H. Conley, Jr
213 Stevens Dr
Pittsburgh, PA
15236

Nestor Brown has been named manager of engineering evaluation services for Carrier's Machinery and Systems Division. He is a former manager of air systems engineering services, and has had extensive experience in the design and development of HVAC equipment. Since 1962, he has been a member of ASHRAE. . . . **John Osborn** has been named superintendent of inspection at the Bay City (Mich.) Chevrolet plant. He joined General Motors in 1953, and prior to his most recent promotion, was superintendent of inspection at Chevrolet Grey Iron, a post he had held since 1971.

1947

Representative
Allan Glazer
20 Monadnock Dr
Shrewsbury, MA
01545

Norman Feldman, vice president of corporate manufacturing service at Honeywell, Inc., has forwarded the information that former WPI President (and Admiral) Wat Tyler Cluverius was aboard the U.S.S. Maine when it was sinking in Havana Harbor, Cuba, in 1898. He came across the information in a review in the Naval Institute "Proceedings" on a book by Admiral Rickover titled *How the Battleship Maine was Destroyed.* At the time of the sinking, Admiral Cluverius was a naval cadet. Later, in court, his testimony was used because "his observations were amazingly perceptive." Page 117 states, "Thus, the observations made by Cadet Cluverius appear to describe the sounds and motions to be expected from an internal burst."

1948

Secretary:
Paul E. Evans
69 Clairmont St
Longmeadow, MA
01106

Representative.
John J. Concordia
16 Summer St
Shrewsbury, MA
01545

Paul Holden continues with Westinghouse and is manager of the engineering department for Gas Turbines at the South Philadelphia plant. Paul's son, Carl, graduated with high distinction in architecture from Penn State last year. Not long ago, Carl spent a semester abroad studying European architecture.

1949

Secretary:
Howard I. Green
1 Kenilworth Rd.
Worcester, MA
01602

Representative
Sidney Madwed
215 Crest Terrace
Fairfield, CT
06432

In May, **Thomas Bamford** was appointed corporate vice president of research and development at FMC Corp., Chicago, Ill. For the past five years, he has been president of Bamford Associates, Boston, a technology consulting firm he formed following over twenty years with Arthur D. Little, Inc. . . . **Fred Brennan,** the ITT Aerospace-Optical Division director of business development, has been elected vice president. He is responsible for planning, directing and coordinating all business development activities for the division, including marketing, advanced programs, advertising, and business planning. Earlier, he was director of marketing at ITT Gilfillan, Van Nuys, Calif., and had fifteen years of marketing experience with Singer-Kearfott.

Currently, Feecon Corp. Westboro, Mass., owned and operated by **Jim O'Regan** and **John Gagliardo, '46,** is the major supplier of equipment for airport crash fire trucks for the U.S. Air Force and the Navy. In 1975, the company became part of the Philadelphia Suburban Group. From 1949 to 1968, O'Regan was with Rockwood Sprinkler (and successors) until it moved to Maine. The O'Regans have a married son and daughter, and a son and daughter in college. Mary and he enjoy golf, and their grandsons.

Estelle and **James Peepas** have four daughters: Valerie Ann, who is married and is a graduate of the Cincinnati Conservatory of Music; Chrisanne, a graduate of Westminster College and an employee of Clark Equipment in the management training program; Diane, an acting major at Bennington College; and Stephanie, a marketing major at the University of Bridgeport. Peepas is president of Selecto-Flash, Inc., West Orange, N.J., with manufacturing facilities and warehouses throughout the world. Estelle loves to golf and Peepas has taken up fishing "in my old age." . . . **Hugh Robinson** is cautious around his 750 BMW motorcycle these days. Last fall, he spent forty days in traction and weeks more in a leg cast following an accident that broke his knee. He and Doris travel in their mini-motorhome and square dance. Their son Glenn is married and lives in Truckee, Calif.; Rachel is at California Polytechnic State University. They have a grandchild. For 16 years, Robinson has been with Raychem in Sunnyvale, Calif. He is western region sales manager responsible for half the U.S. for the Chemelex Division. He is involved with corrosion prevention products for underground and underwater pipelines.

Joe Skidmore is still a sales engineer for Armco Steel. His wife is a pediatric nurse (RN). His son is a school teacher in Seattle and his daughter is a student at Central Washington University. The family backpacks, golfs, and plays tennis. Joe likes photography. . . . **Robert Smith** has his own consulting practice in Eugene, Oregon after nearly 24 years with Westinghouse. He is doing largely industrial work, with "as little commercial design as possible." Amy is a student at the University of Oregon right at "the bottom of the hill." Carol and he are enjoying peace and quiet around the house and their yard and garden.

Alfred Strogoff continues as president and chief executive officer of International Foodservice Corp. in California. Previously, he had been with Sun Chemical Company, as vice president and managed Standard Kollsman, a Sun subsidiary. He also had been president of a Litton education group. For 21 years, he was with Adler Electronics, where he rose to executive vice president. "My WPI background helped prepare me well for my career changes." The Strogoffs have five children: Jody, a reporter; Nancy, an editor; Michael, a graduate student in architecture; and Lauren and Jimmy, college students. . . . Most recently, **Wallace Thompson** has been involved with technology transfer and licensing at du Pont in Wilmington, Del., where he's been since 1950. Now that his three sons have their bachelor's degrees and have left home, his wife is planning "grand additions and improvements to our house, despite its proven adequacy." They like tennis and golf, and belong to some community organizations.

Since graduation, **Robert Wallace** has been a telephone engineer with Bell systems, IT&T, COMSAT and F.C.C. for the last ten years. The Wallaces live on three acres in Northern Virginia, where they have a six-stall barn and kennel and breed prize golden retrievers. Bob and Joy are very active in the Vienna Baptist Church. He is a deacon and she is director of the child care program. They sing in the choir, which toured Europe over a year ago. Summer finds them in Georgetown, Me. They have five children and two grandchildren.

1950

Secretary:
Lester J. Reynolds, Jr.
15 Cherry Lane
Basking Ridge, NJ
07920

Representative:
Henry S. Coe, Jr.
3 Harwick Rd.
Wakefield, MA
01880

John Adams is currently general agent for Occidental Life Insurance Co. of California. He is located in Indianapolis. . . . Formerly with Heald Machine and the Alden Hydraulic Laboratory, **Richard Amidon** has now been named senior vice president of New Hampshire Ball Bearings, Inc., Peterborough, N.H. . . . **Francis Fay** continues as principal engineer at Raytheon Co., Wayland, Mass.

Dr. **Herman Nied** has joined the GE Research and Development Center, Schenectady, N.Y. With GE since 1960, Dr. Nied has served as a research engineer in GE's Re-entry and Environmental Systems Division, Philadelphia; an analytical mechanics engineer at Knolls Atomic Power Lab., Schenectady; and as manager of advanced mechanics in the Gas Turbine Division. He has a PhD from the University of Pennsylvania and belongs to the ASME, the Society for Experimental Stress Analysis, and the American Academy of Mechanics. He is a professional engineer in New York and New Jersey.

Les Reynolds is still at the American Cyanamid Company in Bound Brook, N.J. Presently, he holds the position of assistant marketing manager of Textile Chemicals. He attended the National Technical Conference of the AATCC in October at which **Joe Gibson, '44** received the highest award in the textile dyeing industry, the Olney Award. . . . **Robert Stewart** has resigned as president and chief operating officer of Arlen Realty & Development Corp. to take over the new post of senior vice president of corporate planning development at IC Industries, Inc., Chicago. IC is a diversified railroad, real estate and food products company. Stewart will primarily be in charge of strategic and operational planning, acquisitions and divestitures. His first assignment will cover a possible major transaction involving Illinois Central Gulf Railroad, a subsidiary that IC sought earlier to sell to Southern Railway. Stewart has been nominated by the WPI Alumni Association to a five-year term on the WPI board of trustees beginning in 1980.

1951

Secretary:
Stanley L. Miller
11 Ashwood Rd.
Paxton, MA
01612

Representative.
John L. Reid
31 Spring Garden Dr.
Madison, NJ
07940

Frank MacPherson has retired from politics after serving four years as a Westfield (N.J.) councilman and council chairman of the Public Works Dept. While in office, he was concerned with instituting extensive storm water controls, including a large retention basin project. He says, "**Jack Malloy, '54,** was my 'boss', as he has served as town administrator for many years." Last year, MacPherson Control Products, Inc. celebrated its 20th anniversary. The older MacPherson daughters graduated from UVM. Carol is in Suffield Academy.

1952

Secretary
Edward G. Samolis
580 Roberts Ave.
Syracuse, NY
13207

Richard Boutiette, DPW director in Wakefield, Mass. since 1961, has been reappointed for a three-year period by a unanimous vote of the board of Public Works. In 1977, Boutiette was named "Man of the Year" by the New England Chapter of the American Public Works Association, which he had previously served as president. He is a past president of Norfolk Bristol Middlesex Highway Association and a member of the New England Waterworks Association. He was chairman of the Technical Advisory Committee for Solid Waste Disposal for the MAPC. He has been employed by the Massachusetts DPW, Edward and Kelcey, and the Town of Reading, Mass., as town engineer. In 1966, he gained national recognition for his unique snow-plowing school. He is a registered professional engineer, and he belongs to the ASCE, and the Massachusetts Municipal Engineers Association. . . . **Earl Klaubert's** son Brian is studying mechanical engineering at WPI.

1953

Secretary
Dr. David S. Jenney
109 Wilbrook Rd.
Stratford, CT
06497

Ernest Demar writes: "Now that my son Danny has decided to attend WPI, I am no longer a 'missing person.' " For 17 years Demar has been working abroad. Currently, he is a resident construction manager for Pullman Kellogg Limited, assigned to a large refinery expansion for Mobil Oil outside of London, England. Demar's oldest son is a sophomore at Tufts. . . . **Dave Elovitz** has resigned as chief executive officer of Medical Area Service Corporation in Boston to devote full time to his private practice as a consulting management engineer concentrating on energy systems. He has an office in Natick. He started MASCO in 1972 and built it to an annual volume of over $12 million. His private practice will build on his national reputation in the energy conservation field.

1954

Secretary
Roger R. Osell
18 Eliot Rd
Lexington, MA
02173

Representative.
Roger R. Osell

David Bisson is president of Trend Transit, Inc., Burlingame, Calif. . . . **Sahl Kabbani's** eleven-year-old firm, New Products Industries in Saudi Arabia, manufactures PVC pipes. "It was the first of its kind in the country in 1968." Formerly, he worked as general manager of the Arabian Cement Company. Two daughters are married and son Khairy is studying in Michigan. A few years ago, Kabbani had a "great" reunion with **Abdul Kazi** who had 2,000 men under him, and who was responsible for the American and Russian aid to Afghanistan in the field of construction. "After the revolution, I lost contact with him." The Kabbanis have traveled often to Brazil and Europe and twice around the world.

After working as an engineer for seven years, **Thomas Kee** switched professions for a career in the investment business with Merrill Lynch, Pierce, Fenner & Smith, Inc. He is now an assistant vice president. Son Kenneth, a former high school All-Stater in tennis, is at MIT. Kim, at Brown, was also an All-Stater in tennis and won a varsity letter in girl's track. Kara is in grade school and also likes tennis, golf, and gymnastics. In the summer, the Kees play golf and tennis, turning to platform tennis in the winter. Kee is an "avid backgammon player," and enjoys philately. He sometimes runs into **Dick Lindquist** at stamp shows. Currently on the board of the Rhode Island Association for the Blind, Kee has also served as PTA president and church treasurer.

Jerome Kilburne has spent 25 years with New England Telephone & Telegraph, except for three years with AT & T in New York. In 1975, he started a woodworking business featuring selected furniture accessories, clocks, and stained glass items. The Kilburnes have three children: Debbie, who is at Rhode Island School of Design; Bruce, who is a landscaper; and Donna, a high school senior. They reside in Westwood, Mass. . . . **King Killin** writes that his goals are to "once get an assignment that is not somebody else's disaster, and to catch a 14 pound largemouth bass." As for his career, or anyone else's, "you must be in the right place at the right time to insure success." Since 1974, he has held the post of vice president of engineering at American Can (U.S. Reduction). Previously, he was with Kaiser Engineers, Bridgeport Rolling Mills, and U.S. Steel. The Killins have two sons and a daughter.

Joseph King of Randolph, Vermont, says that his favorite hobby is sailing his 35-foot sloop, "Sea Fever" along the coast of Maine. He likes photography and other outdoor activities, too. His biggest interest now is constructing energy efficient buildings that can be partially heated with alternative energy sources. Presently, he is president of the King Company, Inc., doing general contracting. He owns a small commercial development which has a completed office building and others are being planned. Earlier, he formed an engineering consulting firm, Dubois & King, which provides environmental engineering services to northern New England and which continues to expand. In 1970, be became senior vice president. He resigned a few years ago to start another firm. Formerly, he worked for Metcalf & Eddy in Boston and the New England Division of the Corps of Engineers. He and his wife have four children, the oldest having recently graduated from the University of Vermont. . . . **Richard Kirk** works as staff engineer in high-speed printer development at IBM in Boca Raton, Fla. Formerly, he was with IBM in Huntsville, Ala., and with Hamilton Standard in Windsor Locks, Conn. He has two sons and a daughter. Over the years, he has seen service with the Jaycees as secretary and president in Suffield, Conn., and as an officer and committeeman for churches in Suffield and Huntsville, Alabama. . . . Says **Haralambos Kritikos,** "After obtaining my BS and MS at WPI and being full of good memories, I went to the University of Pennsylvania in Philadelphia, where I continued my studies and obtained my PhD in electrical engineering. I then went to California Institute of Technology as a research fellow for a year, then back to the University of Pennsylvania as a member of the faculty. I am now professor of electrical engineering at the University of Pennsylvania, where I teach and do research in the area of electromagnetic waves."

Robert Labonte's group's activities have focused on NASA, principally in the planning, design, development, testing and integration of improved command and control systems needed to support both the Space Shuttle and the many "exciting space programs planned for the late 1980's." Earlier, he led special studies activities on the airborne warning and control system; and served as the U.S. consultant on overall communications planning on the U.S. NATO delegation in Paris. In previous years at Westinghouse Air Arm, he worked on the development of the radar for the Bomarc missile. For a time, he was on the staff of MIT's Lincoln Laboratory. The Labontes' only child, Robert, spent two years at Columbia, and is now completing his education nearer home. Wife Dolores is the current president of the Shrewsbury Woman's Club. . . . **Harold Lake** wrote an article that appeared in the *Proceedings of the Electronic Components Conference* and a chapter, "Design for Shock and Vibration," which was published in the *Handbook of Electronic Packaging,* McGraw-Hill. He serves as supervisor of electro-mechanical packaging process control systems at the Foxboro Company. Other associations were with Computer Signal Processors, Inc., Sylvania, and Sperry Gyroscope. He has an MS from Adelphi University. His daughter, Debra, graduated from BU; Sheryl, from Bryant College; and Beth is in high school, while Rhonda is in junior high. Lake's wife, Harriet, a dental hygienist, graduated from the University of Bridgeport.

Paul London runs a business fixing vacuum pumps, but spends all the time he can sailing. Former posts were as refrigeration contractor and as a builder of environmental rooms for oil companies. He spent two years at White Sands, N.M., "trying to get some ball bearings to orbit the earth." He has one child at Ithaca College, one at Lewis & Clark, and one riding a bike around England. His second wife, Sharon, graduated this year with a degree in accounting. The Londons live in San Francisco. . . . **Russell Lussier** says that among his "special awards" are seven speeding tickets, two tax audits, and a condemnation notice from Planned Parenthood, Inc. (The Lussiers have five sons.) He has his own agency in Warren, Ohio, where he is a manufacturers' representative. Earlier, he was seven years in sales with Horsburgh & Scott Co., Cleveland, and nine years with the Torrington Company.

Except for a stint in the Army, **Douglas MacLaren** has been with the Torrington Co. since graduation. Presently, he is in sales management in South Bend, Ind. Previously, he had been district engineer and southwestern district manager, with the bulk of his experience being associated with the oil and aircraft industries. He has served on engineering committees for the American Petroleum Institute. One of his sons is pursuing an accounting career, and another, engineering, at Texas A&M. The youngest is eight and keeps Dad's interest in soccer and Little League alive. . . . **Victor Matonis** continues with Monsanto in Springfield, Mass., where he is technology group leader, R&D. He has written some 20 technical papers, and holds an MS and PhD in applied mechanics from UConn. Says he plays "lousy golf, not too bad bridge," and that he and his wife have covered most of the world traveling. Both children are at UMass. Matonis is past chairman of his section of the ASME. . . . **Malcolm McLeod** is a senior development engineer at UCLA. He holds both an MS in engineering and a PhD in planetary and space physics from UCLA.

Milton Meckler delivered a paper, "Integrating Solar Powered Heat-Recovery-Cogeneration Chillers with Building and Thermal Storage Characteristics," before the International Conference on Energy Use Management held in October in Los Angeles. The paper described some of the newer concepts being developed by the Meckler Energy Group and Meckler Engineers Group in Encino, Calif. . . . For two years, **Harry Mirick** has been business manager-controller for external resources (International Purchasing) at Digital Equipment Corp., Maynard, Mass., and has traveled extensively in the Far East and in Europe. He had been with HMW Industries, Lancaster, Pa., as vice president of operations at Time Computer, Inc., producer of Pulsar digital watches. He was also with IBM and the U.S. Army Signal Corps. His wife, Jean, is a nurse at Worcester's Memorial Hospital. Son Robert is at the Naval Academy; and a daughter, Suzanne, at Grove City (Pa.) College. Mirick likes to sail, garden and hike. He is active with the Methodist Church, the Massachusetts Council of Churches, and the IEEE. . . .

Howard Nelson, long associated with the WPI Fund Board, received his master's degree from WPI this year. For the past two years, he has been at Jamesbury in Worcester. Since graduation, he has worked for four companies in the engineering departments, and found the associations "most pleasant." The Nelsons have two sons and reside in Grafton. . . . The youngest of **David Nickerson's** three daughters is in her senior year in college. After 15 years in engineering, David and two other people went into business. "The venture has kept me quite busy and satisfied." The Nickerons live in Wilbraham, Mass.

Bob Niro holds the post of manager of field communications for the Technical OEM Group at Digital Equipment Corp., Maynard, Mass. Since he joined the firm 13 years ago, he has spent most of his time in marketing positions and promoting the very successful PDP-8 minicomputer. Earlier, he spent five years at LFE/Tracerlab in Waltham, Mass. traveling the U.S. and Canada as a project engineer. He and his wife Jackie, who likes to ski, have two daughters, Leslie and Christina. . . . **Robert Pickford** is the manager of systems and procedures for the Pharmaceutical Group of Warner Lambert in Mendham, N.J. His group is comprised of six drug companies, such as Parke-Davis, Warner Chilcott, Texas Pharmacal, and Lactona. He has also been at American Optical, Mass. Mutual Life Insurance Co., and American International College, where he received his MBA and established a data processing program. For a time, he worked for the Counter Intelligence Corps in Panama. Pickford and his wife Betty are the parents of Linda, a Gettysburg College student, and Stephen, 17. . . . During **Fabian Pinkham's** career, he has worked on numerous nationwide projects in the U.S. Dept. of Agriculture, and made the first installation of an integrated data processing system within the USDA. He served on the National Inventory Task Force of the USDA; was a member of USDA's National Transportation Management Task Force; worked on problem areas, such as packaging and protective services; and developed and instituted mathematical models for obtaining optimum solutions for competitive bids involving a multiplicity of limitations, i.e., origin points (sources of supply), processing plants, and destination points for finished products in all fifty states. His efforts proved successful, and he was presented with the highest award for an employee suggestion ever granted in the National Processed Commodity Office.

In 1978, **Ed Power** was elected vice president for planning and market development of Windspan, Inc., a new General Foods subsidiary formed to develop a dinner house restaurant chain. Previously, he had been employed by General Foods at its headquarters in White Plains, N.Y., for ten years working on corporate development programs. The Powers have three children: Jane, Maura, and Ned. Power is a captain in the Naval Reserve. He is inspector general for a Reserve Readiness Command near Schenectady, which is responsible for thousands of reservists. . . . With the Magnetics Division of Spang Industries for ten years, **George Ramig** is now regional sales manager over eight salesmen covering the eastern part of the U.S. Company products include cores for transformers and magnetic steels. Ramig has taken up tennis, which he says his son, Keith, plays better than he. Daughter Jeanne is at Indiana University. Ramig's wife, Virginia, is a musician, while Ramig is active in musical groups and enjoys nature photography. . . . For two years, **Walt Reibling** has been plant manager of the Louisville (Ky.) Corning Glass Works plant known as Corhart Refractories. The plant makes fused cast refractories for the glass industry. Reibling has been at Corning for 15 years. He has three children: a college graduate daughter living at home; Kurt, a married mechanical engineer working at IBM; and a daughter at UConn.

Donald Ross is vice president and general manager at MPB Corporation in New Hampshire. He has been involved in sales, marketing, and specialized business serving the aircraft and aerospace industries. Presently, he is responsible for three divisions in New England. The older Ross daughter graduated from Dartmouth, and the younger is 19. Their son is 14. Ross and his wife Prue are involved with a bank directorship and volunteer school work, respectively. Hobbies include baseball and antique auto restoration.

Laurence Sanborn's oldest boy is a student at WPI. At home, his hobby is "keeping two older cars out of the grave." His true career love is microelectronic assembly, primarily in the areas of thick film hybrids. Last May, he became senior manufacturing engineer planner at Hamilton Standard, Electronics Division. Among earlier employers were GE and Raytheon. . . . **Dexter Sanford** serves as a staff engineer for Northeast Utilities Service Company in Berlin, Conn. His responsibilities include the design and application of protective relay systems for the affiliated companies of Northeast Utilities. During his career, he has worked for Connecticut Power Co., served in the Army at the White Sands Proving Ground in New Mexico, and at Hartford Electric. . . . After a number of years with GE, Fairchild, and Sperry Flight Systems, **William Schoenemann** joined Microform Data Systems as manufacturing manager. Eight years later, the company had grown from two people in manufacturing and zero sales, to 250 people and $36 million in sales. Schoenemann rose to vice president of operations at Microform, then joined Telecommunications Technology, Inc., in California, recently, where he is continuing his pattern as a "workaholic." He's played racquetball three times a week for five years.

Richard Scott holds the post of senior estimator in the Providence office of Gilbane Building Co., a firm he joined following graduation. He worked on various road, bridge, and building jobs for the company, then in 1966, he became town engineer for his home town of Cumberland. In 1971 he returned to Gilbane. He is a professional engineer. The Scotts' four sons all like sports, and Dad has served as Little League coach. Scott has also been associated with the local youth hockey group, and the Cumberland Public Skating Association for the past ten years. . . . **William Seubert,** a licensed professional engineer, is a senior engineer at C.F. Braun & Co., Murray Hill, N.J. He and his wife Diana have four children and live in Belle Mead.

Continuing at the Naval Underwater System Center in Newport, R.I., **Edwin Shivell** is concerned with A&W ranger and fleet systems T&E. He has been Massachusetts state president of the Jaycees. He also was involved with Masonry and the United Fund. Among his hobbies are tennis and sailboat racing. . . . Making antique imitations, woodworking, and cabinetry are favorite pastimes of **Charles Simonich.** He supervises engineering design, construction and maintenance of aerial, underground, buried and submarine structures and cable facilities for telephone communication needs of the Springfield (Mass.) district of New England Telephone Co. Son Charles attends Fairfield University; David is a high school student; and John is in junior high. . . . The **Halvor Skjellaugs** love to travel and spend many vacations in the Canary Islands. Skjellaug works for Norsk Hydro-Rjukan Fabrikker in Norway. The company produces ammonia, ammonium nitrate for forest fertilizers and explosives, and concentrated nitric acid, as well as heavy water and a variety of rare gases. The family, which includes a son and daughter, likes skiing, fishing, and gardening. . . . After twenty-five years with du Pont, **Walter Stewart** of Marietta, Ohio, is presently a senior process engineer in the fluoropolymers division manufacturing Teflon and providing liaison with the engineering department. In the past, he has been involved with the production of the plastic inner layer for windshields, and had been assigned to Parkersburg, W. Va., and Aiken, S.C. Dave is at the University of Cincinnati Medical School. Doug is at the University of Colorado, and Cindy is in high school. All are competitive swimmers. Stewart has coached the local YMCA team.

Seventeen years ago, McKinsey & Company invited **Henry Strage** to go to London for a "short" assignment. Today he is still there, serving as a director of the firm. He, his wife, and four children love London. "It is probably the most civilized city in the world." His most satisfying professional assignments involved the complete restructuring of the government of Tanzania and the reorganization of the United Kingdom National Health Service, which employs a million people. He's been associated with the U.N., the British Cabinet think-tank, and the Bank of England. He is now on assignment with the multinational chemical and oil companies. He is a governor of the Hebrew University Jerusalem Institute of Management. He writes management articles for magazines, speaks at seminars, and sometimes teaches at Harvard Business School. The Strages are well traveled, like to ski, and are involved with the National Association for Gifted Children. . . . **Wilfred Taylor** is the principal member of TEC Associates in Windham, Me. (consulting civil and sanitary engineers). Other associations have been with Dale E. Caruthers Co., Crowell & Taylor, Barnstable, Mass. (town engineer), Corse & Tibbetts, and Columbia Gas Co. Taylor is a professional en-

gineer and enjoys building houses. He has been busy in civic associations, scouting, sailing, and farming. "Raise most of our own food." He hopes to develop water and wind power as well as solar energy alternatives. Currently, he has a tree farm and heats with wood. He has two sons (one a former WPI student) and four daughters.

Otto Wahlrab continues as the owner of John P. Slade Insurance in Fall River, Mass., having purchased the company in 1975 from **Bill Worthley, '37.** He was with Firemen's Mutual Insurance Co., the Navy, and New England Telephone Co. The Wahlrabs live in Rehoboth, where Otto is on the planning board. He is a former chairman of the Republican party in Massachusetts, a trustee of the Congregational Church, president of Family Planning of Fall River, and a director of the local Chamber of Commerce. He is involved with Rotary, scouting, squash, and golf. The Wahlrabs have three daughters, two being in college. . . . Steinerfilm, Inc., Williamstown, Mass., where **Gordon** "Bucky" **Walters** is president-treasurer, is being expanded by 30,000 square feet. (Son **Glenn, '76,** is plant manager.) Walters started the firm in 1972. He was a former employee of Sprague Electric, du Pont, and was with the Army. He holds two patents and has been published in a national magazine. His concerns include church work, prison visitations, Bible studies, camping, swimming, sailing and fishing. Recently, he was in Brazil. He is associated with American Field Service, scouting, the PTA, Little League, and is a director of First Aggie National Bank and Jiminy Peak. He holds 45 percent of the stock in TEPCO. The five Walters children and their parents enjoy their waterfront home on Lake George. Walters is a member of the Presidents Advisory Council at WPI.

R. Kingman Webster holds the post of manager of a regional manufacturer and distributor of feeds for poultry and livestock, and he is located in Andover, Mass. He is a member and officer of several Masonic, YMCA, Red Cross, and United Fund associations. Hobbies include puttering around the house and yard, skiing, and tennis. The Websters have three daughters. . . . In the past year and a half, **Wesley Wheeler** has had eight career-oriented trips around the world. He heads his own firm of International Maritime Consultants Wesley D. Wheeler Associates, Ltd. in New York City. Among his projects have been the coordinating of four containership new buildings for ITEL Corp./ Seatrain Charter, numerous ship surveys, and legal cases. He is also the U.S. representative for Astilleros, Espanoles, S.A. Earlier he was with American Bulk Carriers, Inc; Wheeler Yacht Co.; M. Rosenblatt and Son, Inc.; John J. McMullen Associates, Inc.; and J. J. Henry Co., Inc. For seven years he lived in Spain, Malta, and the Netherlands. He has an MS in engineering (Naval Architecture and Marine Engineering) from the University of Michigan. . . . For twelve years, **"Howie" Whittle** has served as treasurer of Hollingsworth and Vose Co., which manufactures and sells $53 million worth of specialty paper and non-woven products worldwide. Located in South Acton, Mass., the Whittles have three daughters, "who have grown up on a little farm with lots of horses around." They summer on Cape Cod and do some Sunfish racing. They winter at Mad River Glen, Vt., on skis. Their oldest daughter graduated from RIT, and is married; their second is a student at UMass, as is their youngest. Wife Bebe is "quite a horsewoman."

1955

Secretary:
Kenneth L. Wakeen
344 Waterville Rd
Avon, CT
06001

Representative.
Edouard S. P. Bouvier
123 Beechwoods Dr
Madison, CT
06443

Robert Holden now teaches engineering subjects at *Cuyamaca College* in San Diego, Calif. The school is an "offshoot" of Grossmont College, where he has taught for years. Last summer he ran in two marathons (26 miles, 385 yards), and clocked 3 hrs., 48 mins., at the San Francisco marathon, and 3 hrs., 54 mins. in San Diego. He was track manager at WPI in 1955. . . . **Charles Walters,** manager of the Wallingford (Conn.) Electric Division, has been reelected treasurer of the Northeast Public Power Association (NEPPA). Employed in the utility industry for over 20 years, he also has an MBA from the University of New Haven. NEPPA is a Wellesley (Mass.) based association representing the 81 consumer-owned electric utilities in New England.

1956

Secretary:
Rev. Paul D. Schoonmaker
325 North Lewis Rd.
Royersford, PA
19468

Representative
John M. McHugh
431 Beacon Hill Dr.
Cheshire, CT
06410

Alan Adamson, formerly supervisor of Generation Planning, has been appointed planning manager of the New York Power Pool. He is responsible for the Pool's eight member electric power systems, which supply the major portion of the electric energy consumed in New York State. He manages the planning staff, and directs studies regarding the need for different types of generating and high voltage transmission facilities in the state. After graduation, he joined Long Island Lighting, and before joining the Pool in 1971, served as supervisor of generation and interconnection planning. With the Pool, he was responsible for supervising, performing, scheduling, and coordination of generation planning studies in his capacity as supervisor of generation planning. He belongs to the IEEE and serves on the Application of Probability Methods Subcommittee. He and his wife, Carol, have three children and reside in Guilderland, N.Y.

Still with United Technologies, **Ernest Bernstein** is now engineering manager in Farmington, Conn. . . . **Donald Lathrop** has been promoted from associate professor to professor in the humanities division at Berkshire Community College in Pittsfield, Mass. He started teaching in the sciences and engineering department in 1961, and presently teaches philosophy. He has two master's degrees: one in natural science from RPI and another in religion from USC.

1957

Secretary:
Dr. Robert A. Yates
11 Oak Ridge Dr.
Bethany, CT
06525

Representative
Alfred E. Barry
1 Algonquin Rd.
Worcester, MA
01609

John Daly has been elected president of seven Columbia Gas System distribution companies with headquarters in Columbus, Ohio. Columbia Gas Companies included are those in Kentucky, Ohio, Maryland, New York, Pennsylvania, Virginia, and West Virginia. Since 1976, Daly has been general counsel and secretary of Columbia Transmission Corp. in Charleston, W. Va., a unit of Columbia Gas System. He has been with Columbia since 1957, and holds a law degree from Seton Hall. In 1961, he was named an assistant supervisory engineer in New York, then corporate headquarters. In 1971, he was promoted to senior attorney. He became a member of the law department of Columbia Transmission in 1973. In 1976, he was named general counsel of the firm. Daly and his wife, Jane, have three sons and a daughter. . . . **Bob Lemay** is working for IBM in Hopewell Junction, N.Y. . . . Presently, **Richard Moore** serves as supervisor of application engineering at SKF Industries, Inc., in King of Prussia, Pa. . . . **Robert Propper** continues as a visual information officer at the U.S. Dept. of Transportation in Washington, D.C.

Donald Rising holds the post of manager of medical products development at Millipore Corp. in Bedford, Mass. . . . **Richard Stevens** is a sales engineer at Sprague Electric Co. in Inglewood, Calif. . . . **David Stuart,** who serves the Baha'i faith as an assistant auxiliary board member in Massachusetts and New York, was guest speaker at a Baha'i fireside discussion in Schenectady, N.Y. last September. He is an assistant director of the New England Power Exchange.

1958

Secretary:
Harry R. Rydstrom
132 Sugartown Rd.
Devon, PA
19333

Neil Carignan holds the post of chief design engineer in the Jacksonville (Fla.) office of M. Rosenblatt & Son. He is primarily concerned with Navy marine design. . . . **Norman Taupeka** is currently attending the Industrial College of the Armed Forces in Washington, D.C., his studies there concluding at the end of June. ICAF provides senior level courses of study and associated research in the management of resources in support of national security for selected military officers and career civilian officials in the federal government. For three years, Taupeka has served as chief of the Systems Engineering Division at the Center for Tactical Computer Systems, U.S. Army Communications Research and Development Command, Fort Monmouth, N.J. He has held increasingly responsible positions at Fort Monmouth since graduation. The Taupekas and their daughter, Mary Ann, reside in Alexandria, Va.

1959

Secretary:
Dr. Frederick H. Lutze, Jr.
110 Camelot Court NW
Blacksburg, VA
24060

Representative:
Dr. Joseph D. Bronzino
Trinity College
Summit St.
Hartford, CT
06106

After many years of teaching and administrative work, **Oscar Hawley** has just assumed the headmastership of the Harvard School in Chicago. The Hawleys have a son, Peter, and a daughter, Mary Elisabeth. "We try to return to New England every summer for some play at the shore in Rockport, Mass." . . . **Philip Holden** is currently computer systems supervisor at the Brevard (N.C.) film plant of du Pont. His daughter, Cathi, made the dean's list at the University of North Carolina, and is working toward a degree in veterinary medicine. Sister Lori was voted "Citizen of the Year" at her high school, where she was named official photographer of the senior class. Cathi has traveled to Europe and Lori to Venezuela on school trips. The girls also visited an exchange student friend in Japan. . . . **Leo Price** continues with the U.S. Army Corps of Engineers. He is presently serving as a geotechnic engineer in Tel Aviv, Israel. He is concerned with the construction of air bases under the U.S.-Israel agreement. He specializes in horizontal construction and foundations.

1960

Secretary:
Paul W. Bayliss
170 Wyngate Dr.
Barrington, IL
60010

Representative.
John W. Biddle
78 Highland St.
Holden, MA
01520

Cdr. **Kevin Burke** is teaching management at the U.S. Naval Post Graduate School in Monterey, Calif. Last year, he was evacuated from Tehran, Iran, where he was serving as an advisor to the Iranian joint staff. . . . Recently, **Thomas Houston** purchased an ornamental iron works business in Eugene, Oregon. He had been employed by Hughes Aircraft in Fullerton, Calif., for 19 years. . . . **David Mudgett** works at the United Technologies Research Center in West Palm Beach, Fla.

John Reisinger has been named division staff manager of residence services for Southern New England Telephone in a newly created post. He is responsible for staff functions, including business office and phone center store methods and commercial budgets, results, and training. Earlier, he was division manager in materials management. He joined SNET as assistant engineer in 1960. In 1967, he was named installation and maintenance supervisor. After serving as district equipment superintendent and northern area staff manager, he was promoted to division manager in 1976. He has an MBA from the University of Hartford, is a team captain for the United Way of Greater New Haven, and a member of the University Club of Hartford. . . . **Frank Siegel** holds the post of senior engineer at Raytheon in Bedford, Mass. He is in the hybrid microcircuit advanced development group.

1961

Secretary:
John J. Gabarro
8 Monadnock Rd.
Arlington, MA
02174

Henry Allessio, vice president of Hayes/Hill, Inc., a management consulting firm, was recently quoted in *The Wall Street Journal* as saying that demand for auto parts was projected to rise a slim 1.45 percent in 1979 compared with a growth of 3.9% and 5.5% in 1978 and 1977, respectively. People buy fewer auto parts when they drive less, as the slowdown in the growth of auto parts sales proves. . . . **Richard Andrews** continues as program manager for ERT, Inc., in Concord, Mass. . . . Dr. **Norman Bolyea** is now president of Bolyea Associates in Rye Beach, N.H. . . . **David Chesmel** has been appointed manager of marketing for the seal and packing division of Chemplast, Inc., Wayne, N.J., a processor of high performance plastics. He is responsible for marketing in the new division, as well as for sales and product development programs. He holds a master's degree from Wayne State University.

Nino DiPilato has transferred to a new IBM location in Charlotte, N.C. He is presently working on the system design and architecture of Retail Banking Systems as an advisory engineer. He, his wife, and two sons are living in Mathews, a suburb of Charlotte. "We are all adjusting well to the beautiful North Carolina weather." . . . **Ralph Guertin** has moved to Denver, Colo., and is now a geophysical consultant with McAdams, Roux, O'Connor Associates, Inc., an oil and gas exploration firm. He is responsible for geophysical research and for development of new mathematical methods to process seismic data. . . . **Brad Hosmer** has been elected corporate vice president of Group Services for AMF Incorporated. Brad joined AMF in 1978, following a series of marketing, operations and engineering management assignments with three companies, including the management consulting firm of Booz Allen Hamilton. At Branson Sonic Power Co., he rose to vice president of special products marketing. AMF Incorporated, his present firm, is a worldwide producer of leisure time and industrial products.

James Kachadorian, owner and founder of Green Mountain Homes, Royalton, Vt., spoke about his manufactured solar homes as part of a session on emerging architecture in Kansas City in October at the Fourth National Passive Solar Conference. Since 1976, Jim's designs have received national recognition by such organizations as the National Passive Solar Institute, the American Section of the International Solar Energy Society, Inc., the National Woodwork Manufacturers Association, *Solar Engineering Magazine,* and *House and Garden.* Sandia Laboratories, Los Alamos, N.M., selected Kachadorian's design as one of fifteen passive solar homes studied for a special report last July. The houses were considered to be the best passive solar-heated buildings of the year. Already studied by Dartmouth's Thayer School of Engineering, Jim's homes will soon be studied by Brookhaven Laboratories of New York.

Green Mountain passive solar homes are individually designed for homeowners, manufactured in Royalton, and shipped throughout the eastern U.S. from Virginia and Kansas to the Canadian border. Presently, the Kachadorians are building their own solar home, the first such home in Woodstock, Vermont.

Normand Noel is the new director of Gilbane Building Company's regional office in Houston. Since starting at Gilbane in 1970, Noel has served as district manager of business development in the Providence and Washington, D.C. regional offices. He has an MBA from UConn. A Marine for 20 years, he continues as a lieutenant colonel in the Marine Corps Reserve.

1962

Secretary:
Harry T. Rapelje
1313 Parma Hilton Rd.
Hilton, NY
14468

Representative:
Richard J. DiBuono
44 Lambert Circle
Marlboro, MA
01752

Charles Belanger, M.D., has moved from the associate staff to the active medical staff at Hahnemann Hospital in Worcester. He has been associated with the hospital since 1975. After graduating from WPI, he did graduate work in physics at the University of Wisconsin and studied at Dartmouth Medical School. He received his M.D. from the University of Vermont, and was an intern and resident at Children's Hospital, Buffalo, N.Y. As a member of the U.S. Army Medical Corps, he was assigned to Martin Army Hospital, Fort Benning, Ga. . . . **M. Philip DeCaprio** has been promoted to manager of engineering and operations program control and reporting at Northeast Utilities in Hartford, Conn. . . . Recently, **Clifford Engstrom,** manager of the Middleboro (Mass.) Gas and Electric Department, was reelected to the board of directors of the Northeast Public Power Association (NEPPA). He has been manager at Marlboro since 1975 and an employee of the municipal since 1970. He, his wife, Jane, and three sons reside in Lakeville. NEPPA represents 81 consumer-owned electric utilities in New England.

After nearly five years in England, **George Forsberg** has returned to the U.S. and is currently a manager of HMD process technology for Monsanto in Pensacola, Fla. . . . **Martin Gross** has been named product line manager responsible for the direction and management of the modular analog and converter and modular instrument product lines of the Instruments and Systems Group at Analog Devices, Norwood, Mass. Since 1968, he has held a number of sales management positions, the most recent being that of manager of special sales development. He has an MSEE and MS in engineering management from Northeastern. He is married, has two children, and coaches youth soccer and Little League in Sudbury, Mass. Analog Devices is a leading supplier of electronic data acquisition products. . . . **Verne Viele** is with Harris Corp., Web Printing Press Division, Pawcatuck, Conn. He and his wife, Sheila, have seven children. . . . Presently, **Stephen Wells** holds the position of director of operations at Lever Bros. in New York City.

1963

Secretary:
Robert E. Maynard, Jr
8 Institute Rd
North Grafton, MA
01536

Representative:
Joseph J. Mielinski, Jr
34 Pioneer Rd
Holden, MA
01520

Alan Elias is a systems programmer-analyst at Sikorsky Aircraft in Stratford, Conn. . . . **Robert Maynard, Jr.,** is the newly-elected vice president of finance at R. H. White Construction Company, Inc., Auburn, Mass. He is in charge of finance and administration for the company and its subsidiaries. He holds an MBA from Dartmouth's Amos Tuck School of Business Administration. . . . Recently, **Roger McGee** was promoted to crude oil trading coordinator for Standard Oil Company of California in San Francisco. He finds that with unsettled crude supply at the present time, his is a very busy and interesting assignment. Previously, he was involved with operations planning for Chevron USA, Standard's domestic subsidiary. . . . **William Newhall** continues with the family company, Harwood Engineering, in Walpole, Mass. The firm makes equipment used as the national standard for pressure gauges by several countries around the world. Harwood models are used in the U.S. Bureau of Standards in Washington, D.C. Copies of Harwood gauge calibrators are on display in Moscow and Tokoyo. . . . **A. Stephen Otis** serves as vice president of Merrill Lynch, in Los Angeles. . . . **A. Edward Scherer** has received his MBA from the RPI Hartford Graduate Center. . . . **Bill Zinno** continues at Dresser Clark, Olean, N.Y., where he is materials manager.

1964

Secretary:
Dr David T Signori, Jr
6613 Denny Pl.
McLean, VA
22101

J. Michael Anderson is now with Continental Can Company in Wayne, N.J. . . . **Benjamin Brunell** holds the post of manager of manufacturing applications at Waters Associates in Milford, Mass. . . . Dr. **James Kaput**, associate professor of mathematics at Southeastern Massachusetts University, has been named a Danforth associate. The Danforth Foundation Associate Program recognizes and encourages effective teaching and fosters activities which humanize teaching and learning for members of campus communities. Kaput joined the SMU faculty in 1968. He teaches algebra, the philosophy of mathematics, and mathematics education. He has an MA and a PhD from Clark. . . . Still with Pratt & Whitney Aircraft, **John Macko** is presently manager of government liaison for the government products division in West Palm Beach, Fla. . . . **William Phillips** has been promoted to manufacturing manager of Norton Company's Diamond Tool Division. After eight years in Holden, he has relocated to North Carolina.

John Schmidt is an audio-video systems engineer for the American Broadcasting Company in New York. . . . **Wilbur Waters, Jr.,** serves as a senior field engineer-programmer for Westinghouse in Baltimore.

1965

Representative:
Patrick T. Moran
100 Chester Rd
Boxboro, MA
01719

Continuing with Polaroid, **Phil Baker** is presently project manager for industrial products engineering in Cambridge. Recently, he spent two months in Japan developing a new camera. Twice a year, he teaches an optics course during Polaroid's management seminar series. The Bakers and their two children reside in Peabody. . . . **Ronald Chand,** president of ARSEE Corp., Worcester, reports that his growing company has moved to Oread St. in part of a building that once housed General Screw Machine Products Co. His manufacturing space has increased from 2000 to 6000 square feet. ARSEE is the only carbide manufacturing company in New England. It sells carbide to fabricators. Last year, the firm did about $250,000 worth of business. . . . **Paul Schuster** has been appointed head of the processor design department at Bell Labs in Naperville, Ill. He is responsible for the design of general purpose computers for use in the Bell System. Starting at Bell in 1967, Schuster was initially involved in the design of special-purpose hardware for the Navy. In 1971, he was promoted to supervisor in the Ocean Systems Division, where he was most recently responsible for specialized computer design for the Navy. He has an MSEE from WPI, and holds a patent on programmable digital filter realization. . . . **Dennis Simanaitis** is an editor with *Road & Track* magazine in California. . . . **Robert Stow** holds the post of engineering manager at Singer-Kearfott, Wayne, N.J. . . . **Robert Waite** is a member of the technical staff at the Mitre Corporation in Bedford, Mass. He serves as president of the New England Computer Society.

1966

Secretary:
Gary Dyckman
29 Skilton Lane
Burlington, MA
01803

Representative:
Dr. Donald H. Foley
Indianfield Rd.
Clinton, NY
13323

▶*Married:* **John W. Benson II** to Ingrid M. Laurell on July 7, 1979 in Chatham, Massachusetts. Mrs. Benson graduated from the School of Art Education at Virginia's Commonwealth University in Richmond. A former teacher, she now owns and operates The Swedish Butik in Chatham. Her husband is with Burton Industries in Pawtucket.

▶*Born:* to Mr. and Mrs. **Peter Gray IV** their first child, Peter Gray V. . . . to Mr. and Mrs. **Jay Segal** a son, Scott, in August. Daughter Pamela is 2½. Jay is an attorney in New York City and resides in New Rochelle.

Gordon Eaton teaches in Ludlow, Mass. . . . Dr. **Paul Glodis** is a researcher in the physics department at U.C.L.A. . . . **Stephen Kaiser** of Kaiser Sales Corporation, represents the Singer Company. The firm has offices in Los Angeles and Whittier, Calif. . . . **Roberto Huyke-Luigi** is employed in the department of civil engineering at Recinto Universitario de Mayaguez in Puerto Rico. . . . **Errold Moody, Jr.,** who has an LLB from Lasalle and an MBA and PhD in real estate and urban economics from the University of Beverly Hills, is a real estate analyst and consultant in Irvine, Calif. . . . **Donald Petersen, Jr.,** has transferred to Miami with IBM, where he is a systems engineer on the Eastern Airlines team installing a distributed computer network at all the airports which Eastern services. . . . **Michael Portanova** is a corporate economist at DEC in Marlboro, Mass.

1967

Secretary:
John L. Kilguss
5 Summershade Circle
Piscataway, NJ
08854

▶*Married:* **Neil M. Shea** and Judith A. Thiele on June 16, 1979 in Troy, New York. The bride received her bachelor's and master's degrees in zoology at the University of Cincinnati. She is a faculty member at Hudson Valley Community College. The groom teaches at North Shore Community College, Beverly, Mass. He has a master's degree and doctorate in physics from RPI.

Eugene Baldrate, who is a staff manager in facilities planning at SNETCO, is in his second year at the University of Bridgeport School of Law. The Baldrates and their children, Kelly and Brian, have moved to Guilford, Conn. . . . . **Peter Bondy** works for Xerox Corporation in Rochester, N.Y. . . . **Francis Dacri** continues as senior research engineer at du Pont in Old Hickory, Tenn. . . . **Eduardo Mendez** holds the post of project manager at Pavarini Construction Co. in Santurce, Puerto Rico. He and Anita have three children. . . . **John Rogozenski, Jr.,** is employed as manager of development at Dunkin' Donuts in Braintree, Mass. . . . Still with Carrier Corp., **Raymond Seguin** presently holds the post of manufacturing manager at a Carrier division, BDP Company, in Indianapolis. . . . **John Stumpp** continues to serve as an electronic engineer at the National Security Agency, Ft. Meade, Md.

1968

Secretary:
Charles A. Griffin
2901 Municipal Pier Rd
Shreveport, LA
71119

Representative:
William J. Rasku
33 Mark Bradford Dr.
Holden, MA
01520

▶*Married:* **Terrence P. Sullivan** and Holly H. Hurd in Annisquam, Massachusetts on July 28, 1979. Mrs. Sullivan graduated from Colby-Sawyer College, New London, N.H. She is a registered trader for the municipal bond department at Tucker Anthony & R.L. Day in Boston. Her husband is president of Boston Bay Capital, Inc., which he founded. Sullivan has a master's degree from UMass. His firm is a tax shelter planning company placing investments in oil and gas, real estate, and equipment leasing. . . . **Frank S. Yazwinski III** and Emily Groves in South Deerfield, Massachusetts on July 21, 1979. The bride graduated from Hampshire College.

Michael Annon has a new post as a senior engineer at Proto-Power Management Corporation in Groton, Conn. . . . Dr. **Charles Konopka,** a mathematics teacher at Longmeadow (Mass.) High School, recently assumed the duties of assistant principal at the school. He has worked with the Connecticut State Department of Education, was an administrative assistant-teacher with the East Windsor Board of Education, and served as a graduate research technician at UConn., where he received his PhD. Before going to Longmeadow in 1977, he was special assistant to the Connecticut commissioner of education. . . . **David Morris** is a technical specialist at Betz Labs, Trevose, Pa. . . . **Joseph Paquette** holds the post of general manager for Wiley Manufacturing of Port Deposit, Md. Wiley is a unit of AMCA International, a wholly-owned subsidiary of Dominion-AMCA of Hanover, N.H. . . . Dr. **Richard Snay** continues as a geodesist at the National Oceanic & Atmospheric Administration in Rockville, Md. . . . **Richard Vaughn** is the regional sales manager at Harding Co. in Boston. He and his wife, Ann, have three children and reside in Fitchburg.

1969

Secretary:
James P. Atkinson
41 Naples Rd.
Brookline, MA
02146

Representative
Michael W. Noga
West Bare Hill Rd
Harvard, MA
01451

▶*Born:* to Mr. and Mrs. **Daniel C. Pond** their first child, a daughter, Jennifer Katherine, on August 9, 1979. Dan is a senior engineer at Martin Marietta Aerospace, Denver Division, and enjoys very much the casual Colorado life style. . . . to Dr. and Mrs. **Joseph A. Senecal** their third child, Brian Albert, on August 8, 1979. Their other children are Emily, 5 and Eric, 2. Joe is a senior engineer with Polaroid's Chemical Development Laboratories in Cambridge, Mass.

James Atkinson, who is attending the New England School of Law in Boston, also holds the post of assistant contract document coordinator at Massachusetts Bay Transportation Authority in Boston. . . . **Normand Bachand** continues as a staff psychologist at Clinton County Mental Health Clinic in Plattsburgh, N.Y. He enjoys jogging and reading. He and Carol have two children. . . . **Tony Bergantino, Jr.,** remains with Polaroid, and is now the technical support manager. He manages the pilot coating facility for Polaroid's Applied Technology Division. . . . **Kenneth Berube,** who belongs to the Central Mass. Conference of Football Officials, also serves as purchasing manager at Boston Insulated Wire in Dorchester. The Berubes live in Oxford and are the parents of Alan and Carla. . . . **William Boyan** works as an estimator of construction costs at Circle Industries Corp., Bronx, N.Y. He and his wife, Karen, live in Tenafly, N.J. . . . **Michael Cohen** holds the post of marketing representative at STSC, Inc., an international computer services company in Boston. . . . **Joel Cehn** is a health physicist at Teknekron Research, Inc., McLean, Va. His work involves evaluating all the various sources of radioactive air pollutants for the EPA. In his spare time, he sails, roller skates and makes furniture. . . . **Charles Doe** has been promoted to associate actuary within the actuarial organization at State Mutual Life Assurance Company of America in Worcester. He joined State Mutual as an actuarial assistant in 1969. He served as an actuarial associate and senior actuarial associate prior to being promoted to assistant actuary in the company's group term and health organization. He has a master's in actuarial science from Northeastern. In 1977, he became a fellow of the Society of Actuaries.

In August, **Warren Follet** joined Advanced Micro Devices, Inc. of Sunnyvale, Calif. He is a field applications engineer based in the Boston area. Rick, his wife, and two children live in Westford, Mass. . . . **Richard Gurske** continues in Denver, where he is senior environmental engineer at Northern Coal Company. . . . **Gordon Mears** has accepted the post of purchasing manager at American Tourister in Warren, R.I. . . . **James Hills** has started a new business, Custom Valves & Control Corp., in Worcester. The company engineers, designs, and fabricates specialty valves and control packages for the process control market. For eleven years he was engineering manager for Worcester Controls before going into business for himself. . . . Still with Jones Enterprises, Inc., East Hartford, Conn., **Ronald Jones** presently holds the post of vice president and general manager.

Last fall, **Donald Robinson** was named assistant manager of Massachusetts Electric Company's Hopedale district. Formerly, he was an energy systems consultant for Mass. Electric's parent company, New England Electric. In that post, he coordinated the firm's solar water heating test project, recognized as a national model for solar application in a freezing climate. In his new position, he has coordinated five energy fairs (including one at WPI) sponsored by Mass. Electric and its affiliates. He joined the company in 1972 as a consumer services representative.

He served in Vietnam with the 101st Airborne as an artillery officer. The Robinsons reside in Shrewsbury. . . . **Frederick Spreter** is employed as regional sales manager at Gould, Inc., Atlanta, Ga. . . . **Paul Wolf** has been appointed co-manager of the TSM Planning Group at the Northeast Ohio Areawide Coordinating Agency. His duties include responsibility for all highway-related transportation systems management planning with five counties surrounding Cleveland. In the past year, Paul has developed an improved version of the Transyt/6 computer program for optimization of traffic signal timing patterns.

1970

Secretary:
F. David Ploss III
208 St. Nicholas Ave
Worcester, MA
01606

Representative:
Garrett G. Graham
150 Brookside Rd.
Needham, MA
02194

▶*Married:* **Richard G. Drolet** to Gloria R. Breault in Cumberland, Rhode Island on August 17, 1979. Mrs. Drolet is attending Bryant College. The bridegroom works for Valley Gas Co. in Cumberland. He has a degree from URI.

▶*Born:* to Mr. and Mrs. **John J. Gale** twin sons, Michael and David, on October 2, 1979. The family, which now includes three sons, is spending the winter in Florida. Gale is the golf pro at Rochester (N.H.) Country Club. . . . to Mr. and Mrs. **Frank Vernile**, their first child, a daughter, Sarah Marie, on September 13, 1979.

Philip Bartlett, Jr., has been appointed sales manager for the southwest district of Cyanamid's paper chemicals department and is moving to Mobile, Alabama. Formerly, he was a technical sales representative for water treating and mining chemicals for the firm. In 1977, he was named assistant to the marketing manager, paper chemicals. He belongs to the ACS, AICE, the Technical Association of the Pulp and Paper Industry, and has an MBA from the University of Southern California. . . . **Bernard Dodge** is now a research associate at Development & Evaluation Associates in Syracuse, N.Y. He is also a consultant to XIMED Research, Inc. . . . **Jonathan Leavitt** continues as chief test engineer at Combustion Engineering-KSB Pump Co., Inc., Portsmouth, N.H. He and Frances have two children and reside in Exeter. . . . **John Redmon,** who holds an MSEE from WPI, is still an education administrator at Pennsylvania Power & Light Co., Allentown, Pa.

1971

Secretary:
Vincent T. Pace
4707 Apple Lane
West Deptford, NJ
08066

▶*Born:* to Mr. and Mrs. **Daniel J. Dunleavy** a son, John, on February 28, 1979. . . . to Mr. and Mrs. **Leo R. Gillis, Jr.,** a son, Kevin Michael, on July 27, 1979. Leo has accepted a position in the transmission department of Northeast Utilities in Berlin, Conn. . . . to Dr. and Mrs. **Richard San Antonio** a daughter, Marianne Camille, on March 29, 1979. Richard is a resident in internal medicine at Walter Reed Army Medical Center in Washington, D.C.

Paul Cooper, Jr., recently received a service award from the New England Division, U.S. Army Corps of Engineers. He was cited for his willingness to assume new and challenging responsibilities. He and his wife, Maureen, reside in Malden, Mass. . . . **Carlton Cruff** has changed jobs and is now working as a project engineer for Homogeneous Metals, Inc., where he is in charge of a new plant expansion. The firm produces powdered metal for the jet engine companies. . . . Dr. **Claude Mancel,** who has been associated since 1973 with the R&D European Division of Procter & Gamble, was recently promoted to associate director. He lives in Brussels, Belgium, with his wife and three children. . . . **John Plonsky** works as a contract administrator at Sikorsky Aircraft in Stratford, Conn.

1972

Secretary:
John A. Woodward
101 Putnam St.
Orange, MA
01364

Representative:
Lesley E. Small Zorabedian
16 Parkview Rd
Reading, MA
01867

▶*Married:* **Ralph A. Blackmer** and Stacey A. Wagner on September 29, 1979 in Orange, Massachusetts. The bride, a medical technologist, graduated from Framingham State College. The groom has an MS in management science and engineering from WPI. He is manager of sterile operations at Smith, Kline & French Corp., Philadelphia. . . . **Mark A. Fritz** and Margaret McDermott. Mrs. Fritz is a typesetter at Wang Laboratories, where her husband, who has an MBA from New Hampshire College, works as a systems analyst trainer. . . . **Joseph V. Gotta** and Eileen C. Boisjolie in Easthampton, Massachusetts on September 1, 1979. The bride graduated from St. Francis School of Nursing, Hartford, and is a registered nurse at Providence Hospital, Holyoke. The bridegroom has an MBA from Western New England College. He is coordinator of product development at Ludlow Packaging, Holyoke, Mass. . . . **William D. Singleton, Jr.,** and Lee A. Rademacher in Falmouth, Massachusetts on June 9, 1979. Mrs. Singleton graduated from Michigan State University. She is a sales representative-editorial assistant at Goodyear Publishing Co. Her husband is a marketing consultant in the Boston area.

▶*Born:* to Mr. and Mrs. **Walter L. Ballard,** a daughter, Heather Ann, on Mother's Day, May 13, 1979. . . . to Mr. and Mrs. **Henry Greene,** a son, on December 26, 1978. Greene now works as a mathematics instructor at Salisbury State College in Maryland. . . . to Mr. and Mrs. **Robert Shawver** their first child, Matthew Arthur, on July 16, 1979. Shawver is a flow monitoring service unit supervisor for the Washington Suburban Sanitary Commission. He and his family live in Bowie, Md.

Al Heaney has moved to Clearwater, Fla. He recently joined Sperry Microwave Electronics as an engineering staff consultant. . . . **Jeff** and **Mary Bollino Petry, '74** and children, Jeff, Jr., 5, Tony, 4, and Laura, 2, have moved to Detroit, Michigan. Jeff, still with Torrington Co., has taken over Hydromatic for the firm. Mary keeps busy with the children. . . . **Robert Pascucci** has graduated from St. John's University School of Law, where he received a Juris Doctor degree. He has accepted a position with the law firm of Max E. Greenberg, Trayman, Cantor, Reiss & Blasky in New York City. The Pascuccis have a year-old son, Brian. . . . **Wesley Pierson** is a clinical research associate at Riker Laboratories, 3M, in St. Paul, Minn. . . . **Alain Roux** is associated with ELF, a French petroleum company.

1973

Secretary:
Jay J. Schnitzer
322 St. Paul St.
Apt. #3
Brookline, MA
02146

▶*Married:* **Joyce L. Caplovich** to Randy A. Wilson on October 6, 1979 in Cromwell, Connecticut. Mrs. Caplovich is a data processing consultant at Comtech, Inc. in East Hartford. Her husband graduated from Thiel College, and is a data processing consultant at Michrotech, Inc., Simsbury, Conn. . . . **Raymond F. Cherenzia** and Rhonda C. Zanella on August 11, 1979 in Misquamicut, Rhode Island. The bride graduated from Mount St. Joseph College. She teaches in the Westerly school system. The groom holds the post of town engineer for the Westerly Department of Public Works. Recently, he received his professional engineering license from the State of Rhode Island. . . .

▶*Married:* **John J. Luikey, Jr.,** to Lynn S. Knight in Knox, Pennsylvania on August 3, 1979. Mrs. Luikey, a registered nurse, graduated from Clarion (Pa.) State College. The groom is a project engineer at Quabaug Rubber Co., North Brookfield, Mass. . . . **Richard C. Peck** and Mary E. Kowalski on September 8, 1979 in Meriden, Connecticut. The bride graduated from Central Connecticut State College. . . . **Gary N. Shapiro** to Pamela J. Ciardelli on June 24, 1979 in Milford, New Hampshire. Mrs. Shapiro graduated from Wilton Lyndeboro Cooperative

High School and plans to attend the University of Lowell as a chemical engineering major. The bridegroom is a mathematics teacher in the Andover school system. He has an M.Ed. from Boston University. . . . **Ralph J. Veenema, Jr.,** and Janet B. Biancur on September 1, 1979 in Orange, Connecticut. The bride has a BS degree in art education and an MS in early childhood education from Southern Connecticut State College. Her husband holds an MSME from UMass, Amherst.

▶*Born:* to Mr. and Mrs. **Charles Kavanagh,** a son, "C.J.," on April 18, 1979. Kavanagh is projects manager of three sites in northern Nigeria, where he has lived for two years. . . . to Mr. and Mrs. **Stuart Wallack,** a daughter, Rachel, on July 10, 1979. Wallack has been transferred by Torrington Co. to Brighton, Michigan.

Steven Brennan, a general engineer at Naval Ordnance Station, Indian Head, Md., is working on the Navy surface-to-air missile programs. . . . Currently, **Alan Champagne** is located in Shippingport, Pa. with Stone & Webster. . . . Still with GE, **John Gizienski** is now a manager of manufacturing engineering for the company in Ponce, Puerto Rico. . . . **Wallace McKenzie, Jr.,** has been appointed a consultant to the Planning Services Division of Management Decision Systems, Inc. of Waltham, Mass. MDS is a privately-held, national leader in the development and use of problem-solving models and computer software for business analysis and planning. In his new post, McKenzie will help major companies build models to help their businesses. Prior to joining MDS, he was senior operations research analyst for the Converse Division of Eltra Corp. and research associate at WPI. He has an MBA from RPI. He belongs to the Operations Research Society of America, the American Institute of Industrial Engineers, and the Saugus (Mass.) Finance Committee. He has served as area chairman for special gifts of the American Cancer Society. . . . **Scott Blackney** is with Raytheon Co., Wayland, Mass.

Garry Boynton is now a senior chemist in the New York State Department of Agriculture and Markets in Albany, N.Y. . . . **Dan Eide** was recently transferred from Hammond Plastics in Owensboro, Ky., to Carl Gordon Industries, Inc. in Worcester, where he is vice president of manufacturing and engineering. The Eides have two children and reside in West Boylston, Mass. . . . **Claude Lemoi** works as manager of shop operations at GE in Lynn, Mass. . . . **John Manzo** is employed as manager of Raytheon Company in Moorestown, N.J. . . . **Ragunath Mhapsekar** has been named as an estimator at the Schnip Building Company of Norwich, Conn. He will provide the company with estimating expertise in the design-build concept of facilities expansion. . . . **William Nutter** is field service engineer at General Electric Ordnance, Cape Canaveral, Fla. He is a member of the Trident backfit installation and test team. He also serves as resident magnetic disk file expert. . . . Dr. **Philippe Peltre** holds the post of branch manager for the French subsidiary of Procter & Gamble.

Beth Poulin is a consulting engineer for Foster-Miller Associates in Waltham, Mass. She works on alternative energy projects as a project engineer. . . . **Daniel Robbins** is studying for his master of fine arts degree at Ohio University in Athens. . . . Dr. **John Ward** has accepted a position as a meteorologist with the development division of the National Meteorological Center in Washington, D.C.

1974

Secretary:
James F. Rubino
18 Landings Way
Avon Lake, OH
44012

Representative:
David G. Lapre
P.O. Box 384
Tunkhannock, PA
18657

▶*Married:* **David A. Gerth** to Miss Angela A. Ralli in Norwood, Massachusetts. The bride holds BS and MS degrees from Bridgewater State College. She is a special needs teacher in Bellingham, Mass. The groom, who has an MBA from Amos Tuck School at Dartmouth, is a CPA employed as a management consultant in the administrative services division of Arthur Anderson Co. in Boston. . . . **Alfred J. Swierad, Jr.,** and Colleen A. Maroney in Canton, New York on June 16, 1979. The bride, a graduate of Alfred State College, is a senior technical assistant at Bell Laboratories, Holmdel, N.J., where her husband is a member of the technical staff. He has a degree from Texas A&M University. . . . **Mark J. Whitney** and Carolyn L. Noel on July 14, 1979 in Connecticut. Mrs. Whitney has a BA in English and theater arts from Notre Dame Academy and College of White Plains, N.Y. The bridegroom works as a cost engineer at Northeast Utilities Co.

▶*Born:* to Mr. and Mrs. **John Martin,** a second son, David Michael, on July 25, 1979. Martin recently received his Massachusetts professional engineering license. He works as a project engineer in the plant engineering department of Monsanto's Bircham Bend Plant in Springfield, Mass. . . . to Mr. and Mrs. **Glenn Yee,** a son, Nicholas, in Hong Kong on March 21, 1979.

Alan Anderson works as a statistician for the U.S. Bureau of the Census. Also, he is continuing work on a dissertation for his PhD in biostatistics from the University of North Carolina at Chapel Hill. . . . **Dean Anderson** is a project engineer for Perini Corp., Framingham, Mass. . . . In the Sept. 27th issue of *Engineering News Record,* **Garry Balboni,** a project engineer for Perini Corp., Framingham, was quoted in the article, "Permanent Slurry Trench Walls Cut Subway Cost and Disruption.". . . . Currently, **Jonathan Barnett** serves as assistant director of the Center for Fire Safety Studies at WPI. He is also a part-time instructor of mechanical engineering and a doctoral candidate in fire protection engineering. . . . **Michel Benoit** serves as superintendent of lime and limestone at Pfizer, Inc., Canaan, Conn. . . .

Continuing with Gould, Inc., **Bill Delphos** is now director of international in the Fluid Power Group, Rolling Meadows, Ill. . . . **Jim Ingraham** is employed as supervisor of the silver emulsion production group at Polaroid Corporation's New Bedford (Mass.) negative manufacturing plant.

Alan Judd is now senior manufacturing engineer at Cleaver Brooks Co. in Pennsylvania, a division of Aqua Chem, Inc., which is a wholly-owned subsidiary of Coca Cola Co. . . . Capt. **Thomas Kielick,** U.S. Army Signal Corps, Ft. Devens, Mass., presently serves as company commander of Signal Company, supporting the 10th Special Forces Group (Airborne) known as the Green Berets. . . . **Roland Lariviere** continues with Combustion Engineering. He is a senior quality assurance engineer for the firm in Windsor, Conn. . . . **Bob Lindberg** has been assigned by the Naval Research Laboratory to Columbia University, where he will be pursuing research in large satellite control theories. He is also working on his doctorate in mechanical engineering.

William Lisk works as a broadcast engineer at Taft Broadcasting, Buffalo, N.Y. . . . **Richard Loomis,** who has an MS from Berkeley, is with Loomis & Loomis, Inc., in Windsor, Conn. . . . **Larry Martiniano,** still with Stone & Webster, is presently a construction coordinator in Cherry Hill, N.J. . . . **Suresh Masand** now works as marketing manager at Digital Equipment Corp., Nashua, N.H.

John Mason III has taken a job as an applications engineer designing heat exchangers at Lytron, Inc., in Woburn, Mass. The Masons have moved into their new house in Chelmsford. . . . Formerly a consultant with Booz Allen Hamilton, **Steve McGrath** is currently manager of strategic planning for special projects at American Optical in Southbridge, Mass. . . . **David Packard** has joined the production department of the Public Service Company of New Hampshire, the state's largest electric utility. Previously, he was a service engineer with Combustion Engineering in Houston, Texas. The Packards live in Goffstown, N.H. . . . **Hercules Paskali** holds the post of technical sales representative at U.S. Steel in Baton Rouge, La. . . . **Jim Rubino,** former district manager for Torrington Co. in Cleveland, is presently with the firm in Indianapolis. . . . **Douglas Schmidt** is a student at Palmer Chiropractic College. The Schmidts and their two children live in Davenport, Iowa. . . . **Geary Schwartz** has accepted the post of varsity head football coach at Stafford Springs, Conn. It is the first football program at the school. Geary graduated from the University of Bridgeport, and has taught math at Weaver High School in Hartford. He has also coached football at the University of Bridgeport, Southern Connecticut College, and UConn. He was assistant broadcaster on the radio for Bridgeport's home games.

Recently discharged from the Army, **David Scott** is now attending Western New England College School of Law in Springfield, Mass. . . . **Kenneth Shankle** works as a facilities engineer for the U.S. Navy at the Naval Regional Medical Center at Camp Lejeune, N.C. He and his wife, June, have two children. . . . **William Stafford** is branch manager of Walker Laboratories' new office in Charlotte, N.C. The company is concerned with soils, concrete, and steel testing. . . .

Dean Stratouly holds the post of manager of Gordon Systems Division of Carl Gordon Industries, Inc., in Worcester. . . . **Andrew Wemple** has been promoted to assistant actuary within the actuarial organization at State Mutual in Worcester. In 1974, he started work at the firm, and was promoted to actuarial associate in 1976. In 1978, he was advanced to senior actuarial associate within the individual health actuarial organization. Later that year, he transferred to the group actuarial. He is a fellow of the Society of Actuaries.

1975

Secretary:
James D. Aceto, Jr.
70 Sunnyview Dr.
Vernon, CT
06066

Representative:
Frederick J. Cordella
24 Imperial Rd
Worcester, MA
01604

▶*Married:* **Mark R. Cosenza** and Laura-Kay Racicot in Shrewsbury, Massachusetts on August 19, 1979. Mrs. Cosenza, head teacher at Happy Hours Nursery School in Marlboro, Mass., graduated from Worcester State, and is currently working for her master's degree. The bridegroom serves as technical superintendent at Polaroid Corp., Waltham, Mass. . . . **Frederick P. Greulich** and Maureen R. Dillon in Worcester on May 27, 1979. Mrs. Greulich has a BA from Holy Cross and an MA from Brown. She teaches Latin at the Spence School in New York City. Her husband is a manufacturing manager for Procter & Gamble Mfg. Co., Port Ivory, Staten Island, N.Y. . . . **Walter H. Hoskins** to Peggy R. Hebert on May 26, 1979 in Worcester. The bride, a graduate of Doherty Memorial High School, is employed by Mass. Materials Research, Inc., West Boylston. The groom works as an actuarial associate at State Mutual.

Patricia Pfeiffer and Salvatore L. Salamone on July 1, 1979 in Tewksbury, Massachusetts. The bride and groom are graduate students in the physics department at Boston College. . . . **Jeffrey A. Webber** to Jayne A. DiNicola on September 7, 1979 in Pittsfield, Massachusetts. Mrs. Webber is physical activities director of the Girls Club. She has degrees from Berkshire Community College and Lyndon (Vt.) State College. Her husband has done graduate work at RPI. He is a data technician at GE Ordnance Systems. . . . **Todd E. Whitaker** and Patricia J. Massaro in New London, Connecticut on October 7, 1979. The bride, a teacher in East Lyme, graduated from Central Connecticut State College and Southern Connecticut State College. The groom is with the Naval Underwater Systems Center in New London.

▶*Born:* to **John** and **Virginia Giordano FitzPatrick,** their first child, a daughter, Cara Ann, on September 20, 1979. John is with Exxon Research & Engineering in Florham Park, N.J. . . . to Mr. and Mrs. **William C. Rutter,** their first child, a son, Andrew William, on March 26, 1979.

Raymond Acciardi holds the post of supervising civil engineer at the U.S. Bureau of Reclamation in Denver, Colo. He and his wife, Jeannette, live in Lakewood. . . . **Jon Anderson** of Wilmington, Del., is beginning his second year as a law clerk for U.S. District Court Judge Caleb Wright. During his clerkship, the Judge has been working to decide patents upon crystalline polypropylene and a man-made rubber. Recently, Anderson published in the *Columbia Journal of Environmental Law* an article critiquing from legal and technical viewpoints, Secretary of Transportation Coleman's decision permitting the Concorde to land in the U.S. The article was titled: "Decision Analysis in Environmental Decisionmaking: Improving the Concorde Balance." Anderson holds a Juris Doctor degree from Yale. . . . **Alan Bergstrom,** who received his MS in biochemistry from UMass a year ago, is now an associate in research in the Department of Dermatology at Yale University School of Medicine in New Haven, Conn. . . . **Patricia Graham** has been nominated as one of the "Outstanding Young Women of America" for 1979. The honor recognizes young women throughout the nation for professional achievement and community service. Nominated by Central New England College of Technology, Pat is a teacher at Assabet Valley Regional Technical High School and at Central New England College.

Bill Gregory continues as a manufacturing engineer at Boston Insulated Wire & Cable in Plymouth, Mass. The Gregorys have two sons. . . . Still with GE, **John Greenstreet** is now an analyst in computer applications. He and his wife Barbara reside in Baldwinsville, N.Y. . . . **Spencer Liberty** works as a chemist in Newton, Mass. . . . **Paul Loomis** has taken a new job at Olin Corporation in New Haven, Conn. He is with the chemicals group in technical service. . . . **Robert Martin,** who has an MSEE from MIT, serves as field applications engineer at Intel Corp., Chelmsford, Mass. . . . **Charles May** has transferred from Charlotte, N.C. to Tampa, Fla., where he is a sales engineer with Dana Corp. . . . **Stephen Mealy** was recently appointed to a three-year term on the town finance committee in Bourne, Mass. He works for Benthos Co. of North Falmouth. . . . **Martin Meyers** serves as a member of the technical staff at Bell Labs in North Andover, Mass. He has a PhD in electrical engineering from UMass. He is married to **Cathy Seymour, '77**. . . . **Kevin Mischler** has received his master of public administration degree from the Austin Dunham Barney School of Business and Public Administration at the University of Hartford. . . . **Frank Moitoza** is presently a weapons system management trainee for the Naval Sea Systems Command in Keyport, Washington. The management development program consists of rotational assignments in many naval activities around the country. . . .

1976

Secretary
Paula E. Stratouly
318 Thornberry Court
Pittsburgh, PA
15237

Representative:
Richard P. Predella, Jr
40 Hawthorn Rd.
Braintree, MA
02184

▶*Married:* **David F. Andel** and Paula J. Culver in Stratford, Connecticut on June 16, 1979. The bride graduated from Albertus College and is a program performance measurement coordinator at Avco Lycoming, Stratford, Conn. Her husband is with Wilson Instruments, a division of ACCO Industries in Bridgeport, where he is a machine designer. . . . **Paul J. Carabello** to Charlotte A. Nelligan in Belmont, Massachusetts. Mrs. Carabello is a registered nurse. She studied at St. Elizabeth's Hospital School of Nursing. The bridegroom works for MPB Corporation, Keene. . . . **Wayne F. Dyer** to Joan S. Mitchell in Wellesley, Massachusetts on July 21, 1979. The bride is a Wellesley graduate, and is a procedures auditor for the Northeast Division of the American Mutual Insurance Companies. Her husband is a computer programmer for American Mutual Insurance Co., Wakefield, Mass. Previously, he had taught science at Hollis (N.H.) High School and at Minuteman Regional Vocational High School in Lexington, Mass.

▶*Married:* **Roger G. Leighton** and Susan E. Barrett last summer in New York. Mrs. Leighton graduated from Moody Bible Institute, Chicago. The bridegroom works for Eastman Kodak Co. as a tool engineer. . . . **Michael G. Menesale** to Ellen A. Brill on January 6, 1979. The bride graduated from Anna Maria with a BA in social work. Her husband is an estimator with U.S. Steel Supply Division, Structural Wire Products Group, in Fairless Hills, Pa. He is enrolled in the MBA program at the University of New Haven. . . . **Charles F. Moulter** and Marylouise Giordano on August 25, 1979 in North Haven, Connecticut. The groom is a development engineer for Firestone Tire and Rubber Co., Akron, Ohio.

▶*Married:* **John C. Mangiagli, Jr.,** and Terry L. Putnam on June 23, 1979 in Gloversville, New York. Mrs. Mangiagli graduated from Gloversville High School. Her husband is a test engineer at Texaco, Inc. in Beacon. . . . **Paul F. Proulx** to Janet M. Seppanen on June 15, 1979 in East Longmeadow, Massachusetts. The bride has a BSE degree in special education from Westfield State College. She is a teacher in the education department at Monson State Hospital. The bridegroom is a project engineer in the R&D department of the Milton Bradley Co. in East Longmeadow. He attends Western New England College. . . . **Steven H. Schoen** and Victoria C. Powell in Natick, Massachusetts on September 1, 1979. Mrs. Schoen graduated from Natick High School and works as a secretary for Sun Life of Canada in Wellesley Hills, where her husband holds the post of actuarial assistant. . . . **Peter Tordo** and Debbie Noble in Guilford, Connecticut on September 1, 1979. The bride graduated from Temple University. The groom is a loss prevention representative for Liberty Mutual Insurance in North Haven, Conn.

Joseph Betro has received his MSEE from the University of Wisconsin. . . . Still with GE, **John Bucci** is now production supervisor of the task force at GE in Waynesboro, Va. . . . **Albert Cooley** holds the position of administrator of market planning for microprocessor systems at RCA Solid State, Somerville, N.J. He has an MBA from the University of Michigan. . . . **Sidney Formal** is with the U.S. Army Corps of Engineers in Philadelphia.

Recently, **Leonard Goldberg** was named regional and international sales manager for Software House of Cambridge, Mass. He is responsible for the firm's sales west of the Mississippi, the deep South, western Canada, and several international areas. Previously, he was system programmer at Johnson & Johnson, Inc. in New Jersey. Professionally, he is symposia coordinator for the Digital Equipment Corporation Users Society, and a member of the Association of Computing Machinery. He is past president of the Mid-Atlantic DECsystem-10/20 Users Group. Software House is a leading producer of data base software for large Digital Equipment Corporation computers.

Boeing Company, 747 Division, has hired **Richard Isaacs** as an associate engineer at the Boeing plant in Seattle, Washington. Isaacs and his wife, Cynthia, reside in Marysville. . . . **Brian Plummer** is with Intel in Aloha, Oregon. . . . **Jaime Rodriguez** is associated with Rodriguez & Del Valle, Inc., Old San Juan, Puerto Rico. . . . **Steve Tuckerman,** who recently received his master's in regional planning from UMass, is presently the town planner in East Hampton, Conn. . . .

1977

Secretary
Kathleen Molony
6 Aiken St.
Norwalk, CT
06851

Representative:
Christopher D. Baker
P O Box 35
Page, AZ
86040

▶*Married:* **Larry B. French** to Betty P. Stockman in Oxford, Massachusetts on September 15, 1979. Mrs. French graduated from Worcester State, and is a senior systems analyst at Paul Revere Life Insurance Company in Worcester. The groom is a computer programmer with New England Power Service Company in Westboro. . . . **Domenico Grasso** and Patricia A. Prue in Shrewsbury, Massachusetts on July 7, 1979. The bride, a graduate of Smith College, plans to attend Emory University School of Medicine in Atlanta, Ga. Her husband serves as an environmental engineer for the U.S. Army Environmental Hygiene Agency in Atlanta. He has an MSCE from Purdue. . . . **Robert J. Hyland** and Julia K. Wetzel on August 18, 1979 in South Miami, Florida. Mrs. Hyland is a senior at Johns Hopkins University, Baltimore. The bridegroom, a lab technician at the Good Samaritan Hospital in Baltimore, received his MA in biophysics from Johns Hopkins. . . . **Marc N. Richard** and Lisa A. Publicover in Medway, Massachusetts. The bride attends Wellesley College. The groom, an MIT graduate, is with the U.S. Army Signal Corps in Korea. . . . **James M. Rucci, Jr.,** and Nancy A. Caouette in Greenfield, Massachusetts on June 30, 1979. Mrs. Rucci graduated from the Fashion Institute of Technology. Her husband serves as a fire protection engineer at Industrial Risk Insurers, Charlotte, N.C. . . . **William S. Taber** to Margaret R. McHugh in Weymouth, Massachusetts on June 17, 1979. The bride graduated from Weymouth North High School. She is an assistant secretary to an orthodontist. The bridegroom works for Hammond Plastics. . . . **Edward E. White, Jr.,** and Rosann Zizzari on September 23, 1979 in Johnston, Rhode Island. Mrs. White graduated from Rhode Island Junior College. Her husband and she both are employed at Allendale Insurance Company.

Fred Baker has moved from Massachusetts to Beaverton, Oregon. He is a CRT manufacturing process engineer with Tektronix, Inc. "Still a couple short of my goal of seeing all 50 states." . . . **Richard Blauvelt** is employed as a service supervisor at Bridgeport (Conn.) Machines. . . . **Lawrence Coel** has an MBA from the University of Hartford. . . . **David Edgerton** serves as a quality assurance engineer at Data General, Westboro, Mass. . . . **Jeffrey Firestone** has transferred from Rocketdyne to the Military Aircraft Division of Rockwell International. Currently, he is working on an industry-assist contract to Boeing Co. in Everett, Washington, where he is doing design work on the 747. . . . **Paul Hajec** is a highway safety research engineer employed by the Virginia Highway and Transportation Research Council. . . . **Ron Howard** holds the post of president of Datability Software Systems in New York City. . . . **William Hubbard** is director of materials at Data Point Corp. in Sunnyvale, Calif.

"Chuck" Johnson is studying for his MBA at Cornell. . . . **Brian Kisiel** is employed by Betz Laboratories of Trevose, Pa., but is located in Wilton, N.H. He writes: "My area manager is **Bill Messer, '67,** who is a part-time farmer on his 170 acres in Canterbury, N.H." . . . **Fred Koury** serves as manager for Colony Farms, Worcester. He has a BS in mathematics from Framingham State. . . . **John Kuklewicz** is a design engineer at Collins-Rockwell Int'l., Cedar Rapids, Iowa. . . . In August, Lt. **William Lee** took command of HQ Battery, 108th Air Defense Artillery Group, U.S. Army. . . . **Michael Oakes** works for Raytheon Co., Sudbury, Mass. . . . **Ron O'Connor** is enrolled in the School of Public Health at the University of Michigan. . . . **Michael O'Leary** is a sales engineer at Blake Equipment Co., Bloomfield, Conn.

Greg Ruthven has joined Perkin-Elmer Corp., Optical-Technology Division, in Danbury, Conn. He is a structural analyst, and was formerly employed at General Dynamics in San Diego, Calif. . . . **Gregory Scott** serves as a systems support specialist at Energy Enterprises of Denver, Colo. . . . **Cathy Seymour** is a third-year PhD candidate in organic chemistry at MIT. She is married to **Marty Meyers, '75**. . . . Currently a free-lance electrical engineer for a Connecticut company, **Dan Sullivan** lives in Newton, Mass. Prior to taking his present job, he worked for an electronics firm in Watertown. He played in different bands in California earlier. . . . **Nicolette Stultz** has joined Sunworks in Sommerville, N.J., where she is a product development engineer. . . . Presently, **Jeff Tingle** serves as an assistant computer scientist in the Cancer Radiation Therapy Department at Rhode Island Hospital. . . . **J. Gilbert Wilson III** is a structural design engineer at Varco-Pruden in Evansville, Wisconsin. . . . Formerly general manager of the First Madison Corp., **John Zimmerman** is now a research associate at Yale Medical School, New Haven, Conn.

1978

Secretary:
Cynthia Grynick
303 Wolcott St.
Waterbury, CT
06705

▶*Married:* **James M. Fowler** to Kathleen L. Ahern on July 14, 1979 in Melrose, Massachusetts. Mrs. Fowler, a Smith graduate, has taught in Camden, Me. for two years, and has accepted a post as a kindergarten teacher at the Langley School in McLean, Va. Her husband is with the Department of the Navy. . . . **Herbert W. Holmes** to Tana M. Laudicina on May 26, 1979 in Sudbury, Massachusetts. The bride, who graduated from UMass, is a substitute teacher in Sarasota, Florida. The groom is with the U.S. Highway Department. . . . **Gary S. Knox** and Louise M. Asselin in Lincoln, New Hampshire, recently. Mrs. Knox graduated from Emmanuel College. Her husband serves as a manufacturing engineer at Nixdorf Computer Co., Burlington, Mass.

▶*Married:* **Sergej K. Ochrimenko** and Patricia E. Riley in Slatersville, Rhode Island on September 22, 1979. The groom works for Spencer White & Prentis in Hackensack, N.J. . . . **Peter J. Rowden** and Laurie J. Burnett on June 2, 1979 in Halifax, Nova Scotia. The bride graduated from Mount St. Vincent University. She is a legal secretary for Burwick & Burwick in Worcester. The bridegroom works in the production control department at Data General Corporation. . . . **Edmund J. Sprogis** and Debbie Youngblood on August 25, 1979. Mrs. Sprogis is studying for her nursing degree at the University of Vermont. Her husband is employed as an associate level engineer at IBM in Essex Junction, Vt. The couple resides in their own duplex in Burlington. . . .

Dean C. Wilcox to Sandra A. Meyer in Warwick, Rhode Island on October 6, 1979. Mrs. Wilcox graduated from the University of Vermont and is a physical therapist. The groom is a supervisor at General Dynamics-Electric Boat in Groton, Conn.

▶*Born:* to **Leonard** and **Elizabeth Papandrea Lariviere, '76,** a daughter, Christina Marie, on June 5, 1979. Len is a structural engineer with Allen-Sherman-Hoff, a company of Ecolaire in Malvern, Pa. Liz is a market analyst on leave from Westinghouse Electric Corp. Power Systems Generation Division in Lester, Pa. The Larivieres reside in Coatesville, Pa.

Shane Chalke continues at State Mutual in Worcester. . . . **John Contestabile** has been promoted to highway engineer II at the Maryland Department of Transportation, State Highway Administration (SHA). He coaches 8- to 15-year-olds on the Parkville (Md.) Recreation Council Wrestling Team. "Challenging and rewarding!" He rooms with **Rick Mazmanian,** '77, who works in the SHA Bureau of Bridge Design. "There are eight of us here now, including: **Sid Afonso, '79; Carl Blomberg, '79; Paul Gudelski, '78; Bill Malone, '78; Steve Buckley, '77,** and **Chuck Rheault, '77.**

Andrew Corman is with Turner Construction Co., and is located in Columbus, Ohio. . . . Lt. **William Diederich** is at F. E. Warren AFB in Cheyenne, Wyoming. . . . **Mary Donovan** is with the Army Corps of Engineers in Waltham, Mass. . . . **Anne Dyer** serves as a structural engineer at David Taylor Research Center in Bethesda, Md. . . . **Anthony Fernandes** works for Malcolm Pirnie, Inc., Philadelphia. . . . **John Kuchachik** serves as a fire protection engineer at Kemper Insurance in North Quincy, Mass.

Ethan Luce is an associate engineer at the Barden Corp., Danbury, Conn. . . . **Wayne Martin** has been named nuclear plant engineer in operations for the Knolls Atomic Power Laboratory. . . . **Murray Matzmer** holds the post of service adviser at Foreign Motors of Boston. . . . In March, **Theresa Murphy** left Torrington Co. In May, she became a management trainee at New England Telephone, Boston. . . . **Rory O'Connor** wrote "Campus Computer Center Built in Converted Chapel," which appeared in the Sept. 17th issue of *Computerworld*. . . . Currently, **Michael O'Hara** is associate project manager at Firepro Inc., Wellesley Hills, Mass. . . . **Stephen Pace** is employed as field manager of Yukon Construction in Santa Clara, Calif. . . . **John Petze** is a production engineer with Hydroblaster, Inc., Sparks, Nevada. . . . **Anthony Raymond** works as a systems engineer at Electronics for Medicine in Sudbury, Mass. . . . **Bruce Rutsch** is with Prime Computer, Newton Lower Falls, Mass. . . . **Phil Scarrell** is at du Pont in South Francisco, Calif. . . . **David Tate** serves as a software engineer at Sanders Associates, Inc., South Nashua, N.H. . . . **Brian Timura** is a first-year student at Tufts University School of Medicine. Previously, he was employed by St. Elizabeth's Hospital in Brighton, Mass. . . . **Charles Winters** works as an electronics service engineer at Brown & Sharpe, North Kingston, R.I.

1979

Representative
Donald O. Patten, Jr.

▶*Married:* **Glenn R. Baylis** and Lisa D. Newborg in Essex, Massachusetts. Mrs. Baylis is a senior at UMass, Amherst. The bridegroom is employed by Polaroid in Waltham, Mass., where he is a production engineer. . . . **Maryellen Doherty** and Hospitalman 3/c Michael Munzert, on June 3, 1979 in Worcester. The bride is an assistant programmer in the Federal Systems Division at IBM, Middletown, R.I. Her husband serves as a psychiatric technician at the U.S. Naval Regional Medical Center in Newport. . . . **Kenneth A. Gamache** to Diane L. Storm on September 22, 1979 in Rutland, Massachusetts. Mrs. Gamache, a graduate of Mount Wachusett Community College, Gardner, is a secretary at Wright Line in Worcester. The bridegroom is a manufacturing engineer at Digital Equipment Corp., Westfield, Mass.

▶*Married:* **William R. Herman** and Andrea L. Trivieri on August 11, 1979 in Utica, New York. Mrs. Herman, a Becker graduate, is employed by Brooks Fashions, Hartford. Her husband works for Arthur Anderson, Inc. . . . **Dale Hobbs** and **Bonnie J. Derosier** on June 16, 1979 in Lunenburg, Massachusetts. The bride, a senior at WPI, is a chemical engineering major. The groom is with Boeing Aircraft, Seattle, Washington. . . . **Daniel F. Hurst** and Cheryl A. Payeur in Springfield, Massachusetts on July 21, 1979. Mrs. Hurst holds an associate's degree in accounting from Springfield Technical Community College. She was a control clerk with Springfield Institution For Savings. Her husband is involved with research and development of photo technology at Eastman Kodak in Rochester, N.Y. . . . **James D. Kelleher** and Rosemary Shea in Worcester on October 6, 1979. The bride graduated from Holy Cross. Her husband is with IBM, Newport, R.I. . . . **Kenneth Kimball** and **Susan Wright.** The groom works for GE-Knolls Atomic Labs. . . . **Peter Madnick** and Beth J. Pomstein in Framingham, Massachusetts on August 5, 1979. Mrs. Madnick is a senior in civil engineering at the University of Lowell. Her husband is president and national sales manager for Dennesen Electrostatic, Inc., Beverly, Mass. . . . **Christopher G. Mather** and Mary L. Skillen on October 6, 1979 in Oswego, New York. The bride graduated from SUNY, Oswego, and is employed by Eye Consultants of Syracuse. The groom is with Hewelett-Packard. . . . **Anne L. Pattee** and Stephen R. Picardo in Beverly, Massachusetts. Mrs. Picardo, who also graduated from Salem State College, is a high school teacher in the Dover-Sherborn Regional Schools. The bridegroom attends Boston State College and graduated from Lowell University. He works for Sharp Air Freight Company.

▶*Married:* **Thomas D. Rockwood** to Susan E. Kingsley on September 22, 1979 in North Andover, Massachusetts. The groom is with Procter & Gamble, Mehoopany, Pa., where he is team manager of Luvs in the paper products division. . . . **Robert C. Rosenlof** and Mary A. Avery on July 21, 1979 in Hartford, Connecticut. The bride is employed by Travelers Insurance Co. Her husband is with Electric Boat in Groton, Conn. . . . **Jeffrey G. Stickles** and Jane L. Martinelli in Granby, Connecticut on September 8, 1979. Mrs. Stickles was formerly a secretary at Kenney, Webber & Lowell, Inc. The groom works at GE in Erie, Pa. . . . **Richard R. Tardiff** and Debra A. Hebert in Saco, Maine on September 8, 1979. The bride graduated from Biddeford High School. She is employed by Union Mutual Life in Portland. Her husband is at the Portsmouth Naval Shipyard in Kittery. . . . **Paul A. Tessier** and Jane E. Gresh on September 1, 1979 in Avon, Connecticut. The bridegroom is a development engineer at Hewlett-Packard in Waltham, Mass. . . . **John F. Wheeler** to Anne S. Malaney in Johnstown, New York on July 21, 1979. Mrs. Wheeler has a paralegal degree from Becker Junior College. Her husband works for Turner Construction Company of Boston. . . . **Thomas J. White** and Linda J. Hein in Paxton, Massachusetts on August 11, 1979. Mrs. White attended UMass. She is administration manager at K2 Corp., Wilmington. The groom serves as a wine salesman for Chas. Gilman & Sons, Medford. . . . **Robert A. Wood** to Robin A. Wrobel on June 16, 1979 in Warren, Massachusetts. Mrs. Wood attended Becker. Her husband is employed by GE in Utica, N.Y.

Donald Abells is an associate engineer at Raytheon in Sudbury, Mass. He is a design engineer on the laser gyro program. . . . **Sidney Afonso** works as a highway engineer I for the State Highway Administration in Baltimore, Md. . . . **Leona Arsenault** serves as a graduate research assistant in the ME department at WPI. . . . **Robert Avarbock** has joined Digital Equipment Corp., Tewksbury, Mass., where he is a systems programmer. . . . **Kent Backe** holds the post of staff engineer at CNR, Inc., Needham, Mass. . . . **Stephen Blanchette** is employed as a software engineer at Digital in Maynard, Mass. . . . Hewlett-Packard Co., Lexington, Mass., has hired **Dean Bogues** as a logic analysis-development specialist. . . . **Roland Brooks** attends Fairwood Bible Institute in Dublin, N.H. . . . **James Campbell** serves as an associate engineer at Honeywell in Billerica, Mass. . . . **Ian Cannon** has been named a member of the technical staff II at the Rocketdyne Division of Rockwell in Canoga Park, Calif. He is a systems analyst and programmer in aerospace engineering.

Stephen Caputo holds the post of sales assistant in the technical marketing program at GE in Bloomington, Illinois. . . . **Charles Carter** is a field engineer at Schlumberger Well Services in Pharr, Texas. . . . **Hosur Chikkalingaiah** serves as a sanitary engineer at Whitman & Howard, Inc., in Wellesley, Mass. . . . **Stephen Clark** has been named design and development engineer at Raytheon in Sudbury, Mass. . . . **Cynthia Connor** is an associate engineer at Westinghouse-Bettis

Atomic Power Lab. in West Mifflin, Pa. . . . **James Cunniff** holds the position of administrative technical support manager at Jamesbury Corp. in Worcester, Mass. . . . **Edward Curtis** has joined Pratt & Whitney Aircraft, East Hartford, Conn. . . . **George Dainis** is in the chemical engineering graduate program at MIT. . . . **Gail D'Amico** is studying for a PhD in pharmacology at Mt. Sinai Medical School in New York City.

Andrew Davidson works as a salesman for the John Hancock Mutual Life Insurance Company in Worcester. . . . **John Davidson** is a CDP engineer at GE In Lynn, Mass. . . . **Beth Raymond Davis** has been named a structural engineer II at Allen-Sherman-Hoff in Malvern, Pa. . . . **Paul Delvy** is employed as a project engineer at Wang Laboratories in Lowell, Mass. . . . **William Donoghue** is a design engineer at Hamilton Standard, Windsor Locks, Conn. . . . **Chester Drake** has joined United Engineers & Constructors, Boston. . . . **Ron Drewiany** serves as an associate engineer in the Electric Boat Division of General Dynamics in Groton, Conn. . . . **Richard Durand, Jr.,** is pursuing a PhD in chemistry at Cal Tech.

Stephen Falls has joined the Spencer Turbine Co. in Windsor, Conn. . . . **Eugenia Fernandez** is a technical representative for Kemper Insurance, Southfield, Mich. . . . **Alwyn Fitzgerald** works as a biological assistant at Connecticut Valley Biological Supply, Co., Inc., Southampton, Mass. . . . **Eileen Foley** serves as a mechanical engineer at the U.S. Army Armament Research and Development Company, Picatinny Arsenal, Dover, N.J. . . . **Athanasios Foutsitzis** is a research assistant and graduate student at WPI. . . . **James Gaffney** has been named a chemical engineer at the Kendall Co., Walpole, Mass. . . . **Tom Girotti** is a project engineer at Virginia Electric & Power Co. in Richmond, Va. . . . **John Grimwade** works as a field service engineer at Babcock & Wilcox Co., Barberton, Ohio. . . . **Mark Groves** has joined GE in Utica, N.Y. . . . **William Guerin** is employed at Idealab, Inc., Franklin, Mass.

International Harvester Company has awarded a graduate dissertation fellowship to **James Gustafson,** currently a candidate for his MSME at WPI. He was one of 174 graduate students, representing 88 colleges, who entered the competition for the six fellowships offered by IH for the first time this year. Aimed at providing assistance to students, benefitting the colleges, and advancing industrial technology, the fellowships offer maximum funding of $25 thousand each. They cover up to a two-year period, provide funds for a cash stipend, tuition, and support of research costs. Gustafson's winning proposal title was: "Strain Measurement by Hologram Interferometry." His research will be aimed at advancing present knowledge for holographic strain analysis by experimenting with new procedures that will relate directly to surface strains of three-dimensional objects. The study will develop technology particularly adaptable in designing and testing critical components in the automotive, aerospace, and electronics industries and in medical laboratories. Gustafson belongs to the ASME. During the past summer, he has been employed as a project engineer by Ambac Industries of Springfield, Mass.

Kevin Halloran holds the post of president of Advanced Hybrid Systems in Newton Centre, Mass. . . . **Dorothy Hamilton** is doing work in inorganic chemistry at the Graduate School of the University of Illinois in Urbana. . . . **Scott Hansen** has joined Monsanto Textiles, Decatur, Alabama. . . . **John Haporik** serves as an associate environmental engineer at B.F. Goodrich Chemical Co., Calvert City, Ky. . . . **Henry Hazebrouck** has been named a research engineer at Ampex Corp. in Redwood City, Calif. . . . **Mark Hecker** is employed as a design engineer at Data General, Westboro, Mass. . . . Raytheon Company in Wayland, Mass. has tapped **Paul Henderson** as an associate engineer. . . . **Daniel Hennessy** graduated magna cum laude from Boston College, and is studying for his MBA at the University of Michigan. . . . **John Hopkins, Jr.,** works as a sales engineer at Alger Corp., Abington, Mass. . . . **Arthur Hughes** is employed as a field engineer at Dresser Industries in Texas. . . . **Stephen Hull, Jr.,** who holds an MS from WPI, is working on his PhD at Michigan State, East Lansing. His wife, Kathy, is a resident at St. Joseph's Hospital in Flint preparing for family practice.

Craig Jacobson works as a gear product design engineer at GE in Lynn, Mass. . . . **Bruce Jenket,** an officer candidate in the Navy OCS in Newport, R.I., will be moving to Orlando, Fla. for six months, then on to Idaho. . . . Turner Construction Co., Columbus, Ohio, has hired **Richard Jenkins II** as a cost engineer. . . . **Brian Johansson** is with Motorola in Plantation, Fla. . . . **David Johnson** and his wife Joan are now residing in London. Johnson is with Film Cooling Towers, Ltd. in Richmond, Surrey, U.K., as well as with Johnson International, Ltd. in Bridgewater, Conn. . . . **Kilmer Joyce** has been named associate engineer in the Combustion Turbine Division of Westinghouse, Concordville, Pa. . . . **Stephen Kapurch** is with the Dept. of the Navy Fleet Analysis Center in Corona, Calif. . . . **Ronald Knapp,** who has an MSEE from WPI, holds the post of design engineer at Analog Devices, Wakefield, Mass. . . . **Richard Kozicz** has joined Data General, Southboro, Mass., where he is a systems test engineer.

Claire LaChance is with GE in Philadelphia. . . . **Norman Lacourse** has been named a chemist at National Starch & Chemical Corp., Bridgewater, N.J. . . . **Ken Laliberte** serves as a manufacturing engineer at Norton Co., Worcester. . . . **Ray Lambert** is employed as a project engineer at Monsanto in Springfield, Mass. . . . Presently, **Brien Laufer** is studying for his MSEE at Ohio State University. . . . **Stephen Lawry** is a graduate student in the physics department at WPI. . . . **John Lennhoff** holds the post of development engineer at Kodak, Rochester, N.Y. . . . **Stephen Lesniewski** is a student at Jagiellonski University in Krakow, Poland. . . . **Ronald Lucier** serves as an associate engineer at Yankee Atomic Electric Co. in Westboro, Mass.

Frank Maldari works for Itek Corp., Lexington, Mass. . . . **Frank Martin** is a solar engineer at Environmental Alternatives, Inc., Dover, N.H. He is designing a home which he, **Kevin Doherty,** and **John** "Sid" **Fitzgerald** may be building next spring for the owner. . . . **Timothy McAlice** has joined Pratt & Whitney Aircraft Group in West Palm Beach, Fla. . . . **Kathleen McKeon** is a teaching assistant in the math department at Michigan State University in East Lansing. . . . **James Miller** is studying for his MS at Stanford University, where he is a teaching assistant in the EE department. . . . **Donald Mitchell** serves as an assistant engineer for Public Service of New Hampshire in Manchester. . . . **Lisa Mitchell** is employed as a field liaison engineer at Westinghouse Elevator Co., Randolph, N.J. . . . **Jack Morrison** has joined Pratt & Whitney, East Hartford, Conn., as an experimental engineer. . . . **Tom Murray** is a process engineer at Texas Instruments in Dallas.

Prime Computer, Inc., Framingham, Mass., has employed **Peter Pappas** as a software engineer. . . . **Stephen Parent** is at Brown University, Providence, R.I. . . . **Gary Pearson** is employed as a product design engineer at Raytheon-Data Systems, Norwood, Mass. . . . **Heidi Pivnick** has been hired as operations supervisor at AT & T Long Lines, Hartford, Conn. . . . **William Potter** is with Motorola in Ft. Lauderdale, Fla. . . . **Joyce Poulton** is a mathematician at Vitro Laboratories in Newport, R.I. . . . **Stephen Prawdzik** has been working as an assistant sales engineer at GE in Nashville, Tenn. . . . Presently, **Robert Reed** is a product engineer for Wyman-Gordon in North Grafton, Mass. . . . **Rene Richard** has accepted a post at Kodak in Rochester, N.Y. . . . **Glenn Robertson** serves as a product engineer at Texas Instruments in Houston. He is responsible for a memory device. . . . **Ali Rostami** is a graduate student at Stanford University. . . . Honeywell, Inc., Lexington, Mass., has named **Ron Roth** an associate project engineer. . . . **Carl Rutigliano** works as a mechanical design engineer at GE in Fitchburg. . . . **Scott Ryder** has joined New England Power Service Co., Westboro, Mass.

David Scheffler serves as a test engineer at Raytheon Data Systems in Norwood, Mass. . . . **Richard Schneider** is a manufacturing process engineer at Texas Instruments, Mansfield, Mass. . . . **Monique Schobert** is employed as a member of the research staff at Western Electric in Princeton, N.J. . . . **David Sheridan,** a 2/Lt. in the U.S. Army Ordnance Corps, is currently attending Explosive Ordnance Disposal School. . . . **Alan Smelewicz** is a teaching assistant at WPI. . . . **David Smith** is working for his MBA full time at Babson College, Needham, Mass. . . . **Alfred Spada** is a graduate student at MIT, where he is studying for his PhD. . . . **Andrew Sumberg** has joined Thermo Electron in Waltham, Mass. . . . **Edward Tidman III** holds the post of group insurance underwriter at State Mutual in Worcester. . . . **Bob Tosi** serves as a design engineer at Digital Equipment Corp., Maynard, Mass. . . . **John Tracy** is an MBA student at Northeastern in Boston. . . . **Bradley Traver** works as a surveying technician for the U.S. government in the National Park Service. He writes, "Constantly travelling!" . . . **Tom Van Ness** is with Kodak, Rochester, N.Y.

David Wardell is at GE in Schenectady, N.Y. . . . **Vincent Wasnewsky** is a teaching assistant at WPI, where he is studying for his MSEE. . . . General Dynamics-Electric Boat, Groton, Conn., has employed **George Wespi** as an associate engineer. . . . **David West** works for Conrail in Pittsburgh. . . . **David Willey** is an associate engineer at Lockheed-Georgia in Marietta, Ga. . . . **Chris Wilmot** serves as a chemical engineer at Naval Ordnance Station, Indian Head, Md. . . . **William Winters** is at Cornell in Ithaca, N.Y. . . . **Vincent Wolff** has accepted a position as an associate member of the research staff at Ampex Corp., Redwood City, Calif. . . . **Lawrence Woodward,** who has his MSEE from WPI, is a teaching associate at UMass in Amherst. . . . **Paul Wrabel** is an engineer assistant at Babcock & Wilcox in Barberton, Ohio. . . . **Priscilla Young** is employed as an engineering trainee at Mobil Oil Corp., Scarsdale, N.Y. . . . **Robert Zunner** has joined Raytheon in Wayland, Mass.

School of Industrial Management

Harold White, '55, now back with Norton in Worcester following a seven-year stint for the firm in England, says that his hobbies include collecting antiques, woodworking tools, and American clocks. He enjoys clock repairing and travel. "We have been in Europe, Asia Minor, and Africa, but Cape Porpoise, Me. is a favorite spot for family gatherings." Last summer, the Whites attended the Queen's Lawn Party at Buckingham Palace.

George Durnin, Jr., '61, continues at Franklin County Public Hospital, Greenfield, Mass., where he serves as vice president of employee services.

William Lechman, '64, has been named operations manager for the Chain and Components Division of Rexnord, Inc. in Milwaukee. He is responsible for all manufacturing and related areas for the division. Previously, he was general manager of Ruberg & Renner, Germany. He joined Rexnord in 1956 as a student trainee. He graduated from the University of Connecticut with a degree in industrial engineering.

Edward Bilzerian, '66, was recently appointed vice president and controller of Bay State Abrasives Division of Dresser Industries, Inc., in Westboro, Mass. With the firm since 1955, Bilzerian has held managerial posts in pricing, cost accounting, and general accounting. He is a graduate of Clark University.

Edwin Larson, '77, has been named business manager of industrial production products at Norton Company's coated abrasive division, Troy, N.Y. Since 1956, he has held various posts in field sales, marketing, and product management for both grinding wheels and coated abrasives. In 1978, he moved to the Albany-Troy area as product manager of cloth backed products.

John Hickey, Jr., '78, is listed in the 1979 edition of *Who's Who in Finance & Industry*. Last August, he was appointed controller of New England High Carbon Wire Corp., Millbury, Mass.

Robert Eves, '79, is now the technical manager of Norton Company's new proppants plant in Fort Smith, Arkansas. He has held increasingly responsible posts in manufacturing control and process engineering since joining the firm in 1946. A registered professional engineer, he holds an ME degree from Tri-State University in Angola, Indiana.

William Monigle, '79, is president of Video Base, Inc., Merrimack, N.H. The firm produces custom video taped training and communications programs. Monigle graduated from the University of Massachusetts.

Natural Science Program

John Sakala, '66, has been named principal of Princeton (N.J.) High School. He was selected from nearly 100 applicants. Previously, he was principal of Rockport (Mass.) High School, and of Homebase School in Watertown, Mass. He had taught mathematics and physics in Watertown, where he was also a coordinator of science for the school district. He has a certificate of advanced graduate studies from Northeastern, as well as a BA from Brandeis. Applicants for the principal's post were thoroughly screened by the Board of Education, the high school staff, and members of the community. Sakala was picked from among four finalists.

Sr. Pauline Kalagher (S.S.J.), '78, is a science teacher at Milford (Mass.) High School.

P. Martin Conway, '79, teaches at Granby (Mass.) Senior High School. . . . **Timothy Hoar, '79**, is employed by the school department in Franklin, Mass., where his is an educator at the junior high school. He and his wife, Susan, have two children. They live in Mendon. . . . **Robert Raymond, '79,** teaches chemistry at Mahar Regional School in Orange, Mass.

L. Herbert Carter, '07, died in a convalescent hospital in San Jose, California on October 3, 1979.

A Worcester native, he was born on Jan. 31, 1885. After studying electrical engineering at WPI, he worked several years for New York Telephone. Other employers included Reed & Prince, and Worcester Pressed Steel, from which he retired in 1950 as plant engineer. From 1950 to 1961, he was a consulting engineer in Worcester, under the business name of the Carter Engineering Service. He was a registered, professional engineer.

Mr. Carter, who moved to California in 1962, was active in the Little House Senior Citizens Center in Menlo Park. He had previously belonged to the Tech Old Timers, the Elks, and had been active in scouting.

Richard B. Davidson, '17, a retired associate engineer at the Sacandaga Reservoir in New York, died in Glens Falls on September 13, 1979. He was 83.

He received his BSCE from WPI in 1917. Following graduation, he was an ensign in the U.S. Naval Reserve until 1921. He attended Officer Material School at Harvard, and later worked for the Power Construction Company of Worcester. While at Worcester, he was involved with hydroelectric and dam construction on the Connecticut and Deerfield Rivers.

In 1925 he joined the Hudson River, Black River Regulating District of Albany, N.Y. as assistant engineer. Upon completing his duties on the Conklingville Dam and Sacandaga Reservoir flood control project, he was named associate engineer on the maintenance of the Reservoir. In 1966, he retired after serving the Hudson River-Black River Regulating District for 41 years. He served as district consultant for two years after retirement.

Mr. Davidson was born in 1895 in Sterling, Mass. He belonged to Sigma Phi Epsilon, the Eastern Snow Conference, and the American Legion. A fellow of the ASCE, he was also a registered professional engineer in New York.

Retired Army Major General **Kirke B. Lawton, '17,** who coordinated photographic coverage of all U.S. ground troops on the Western Front during World War II, died in Athol, Massachusetts on October 20, 1979. He was 84 years old.

General Lawton's 37-year career in the Army touched on two world wars, the German surrender signing, the Big Three Potsdam Conference, and the Army-McCarthy hearings. At the apex of his career, he served as commander of Fort Monmouth, N.J. and its Signal Corps Center. The two-star general had served as head of the Army Pictorial Service, for which he earned the Legion of Merit, as chief of American ground combat photographers in Europe in World War II, and as an eyewitness to top-level end of war and postwar meetings.

His various Army positions took him to Hollywood, where he assisted in the making of patriotic movies for the home front, to the atomic bomb test in Nevada in the 1950's, and to a number of White House receptions. From 1940 to 1944, Gen. Lawton served in Washington, D.C. He was promoted to Colonel and named chief of the Army Pictorial Services. In 1944, he was assigned to Supreme Headquarters of Allied Forces in Europe. Starting 12 days after D-Day, he followed the American Army across northern France with a cameraman, a jeep, a chauffeur, and a pup tent. He filmed and conferred with Eisenhower, Patton, Bradley, British Field Marshall Montgomery, and French General DeGaulle. On May 7, 1945 he "freelanced" his way into a school at Rheims, France at 2 A.M. and took the only color photos made of the German surrender ceremony. Two months later he "crashed" the Potsdam Conference. "I sneaked in," he was to confess later.

His prized Potsdam photo, widely published in periodicals and textbooks, was shot on a balcony over Churchill's broad frame and showed men of history around a huge round table including: Truman, Byrnes, Admiral Leahy, Churchill, Atlee, Anthony Eden, Stalin, Molotov, and Gromyko.

In 1954, while in command of Fort Monmouth and the Signal Corps Center with its radar-sensitive laboratories, Gen. Lawton was put into the national spotlight during the heavily televised Army-McCarthy hearings. The general was praised by Senator McCarthy in regard to the civilian loyalty-security check system he had instituted at Fort Monmouth. He could not testify at the hearings, however, because of a "gag" order issued by President Eisenhower. At the time, Gen. Lawton let it be known that following the job suspensions he ordered at Fort Monmouth, there was no longer a threat of a spy ring at the installation.

Among the general's many awards are the U.S. Legion of Merit, three battle service stars, the victory medal, and Czechoslovakia's Medal of Merit, First Class. He received an honorary doctor of science degree from WPI in 1950. A past president of the Boston chapter of the Alumni Association, he had also served on the Executive Committee.

Gen. Lawton was born on Nov. 3, 1894 in Athol, Mass. In 1917 he graduated as a mechanical engineer. He belonged to ATO.

Leslie H. Spofford, '17, chief engineer at Wachusett Engineering & Combustion for many years, died in Holden, Massachusetts on April 21, 1979.

He was born on Nov. 30, 1893 in Turners Falls, Mass. In 1917 he received his BSEE, then joined Hartford Electric Light Co. He worked for James McKinney & Sons, Eastern Bridge & Structural Co., and for 27 years the Worcester County Engineering Department, where he was a civil engineer. In 1959, he started work at Wachusett Engineering & Construction Co., Holden, where he held the post of chief engineer.

Mr. Spofford, a Mason, was a registered professional engineer and land surveyor in Massachusetts. He was also registered in New York. He was the father of Winslow Spofford, '56.

Charles C. Alvord, '18, a retired mechanical engineer and consultant for Norton Co., died on August 28, 1979 in Hyannis, Massachusetts at the age of 82.

He retired from Norton's machine division operation in Worcester in 1961, and then served as a consultant for Norton-Asquith, its Shrewsbury, England, branch, for twenty months. While with Norton, he invented several machines for the company.

Before joining Norton in 1936, Alvord was associated with his father, Clinton Alvord, '86 (deceased) in the former Worcester Loom Works. During his early years, Alvord built and operated wireless sets,when they were still a great novelty. He was proud of Indian relics and Civil War documents handed down through the family by his uncle, Maj. Henry E. Alvord, who, after the Civil War, was so successful dealing with Indians in Kansas, Oklahoma, and Texas.

Alvord, who trained in aerial photography at Cornell in World War I, was born in Worcester on Dec. 19, 1896. He was a professional engineer and had a BSME from WPI.

Cornelius A. Callahan, '21, a retired consultant, died at his home in South Yarmouth, Massachusetts on June 8, 1979.

Following his graduation as a chemist, Mr. Callahan worked for four years at Hamilton Woolen Co. He held subsequent posts at Pacific Mills, Charlton Woolen, and at Haywood-Schuster Woolen Mills. At Goodall Sanford, Inc., he was a vice president and at Stroock & Co., works manager. In later life, he ran Callahan Realty, Newburgh, N.Y., and was a real estate appraiser and consultant.

Mr. Callahan belonged to Lambda Chi Alpha, Tau Beta Pi, Sigma Xi, and Skull. He was born on Sept. 30, 1899 in Winchendon, Mass.

Harold C. Johnston, '23, a retired representative for Hobart Co., died at his home in Rumford, Rhode Island on September 9, 1979 at the age of 79.

He was born on Nov. 12, 1900 in North Easton, Mass., and was a member of the Class of 1923. During his career, he was with Worthing Pump & Machine Corp., Lupton Co., and Toledo Scale Co. In 1969, he retired from Hobart Co., Providence, after thirty years of service.

A member of ATO, Johnston had also belonged to the National Association of Cost Accountants, the Sales Manager Club, the Chamber of Commerce, the Masons, and the Shrine. He was a member of the Episcopal Church and the Wannamoisett Country Club.

Wolcott S. Bissell, '25, died on September 10, 1979 in Hartford, Connecticut. He was 75 years old.

In 1965 he retired as assistant training coordinator for the Connecticut State Highway Department after 29 years of service. He was responsible for formulating and teaching courses in algebra, trigonometry, and drafting. He had been a member of the Division of Design before transferring to the Training Division. Earlier, he was with Buck & Sheldon, Hartford.

Mr. Bissell was a life member of the Connecticut Society of Civil Engineers. A 50-year Mason, he had served as grand secretary in Connecticut for the Royal Arch Masons, and had held many other Masonic posts. He belonged to SAE and the Connecticut State Employees Association.

A graduate ME from WPI, Bissell also had a BSCE from MIT. He was born on March 17, 1904 in Hartford, Conn.

Raymond H. Amsden, '26, passed away at his home in Reading, Massachusetts on August 27, 1979 at the age of 75.

He retired in 1969 following 38 years as a fire protection engineer for the Factory Insurance Association of Hartford. He traveled the New England States, and was then a special agent in the Boston office.

A native of Arlington, N.J., he was born on Jan. 25, 1904. He belonged to the Pioneer Club of the Factory Insurance Association, and was a member of the class of 1926.

Peter C. Gaskill, '27, a retired clinical psychologist with the Veteran's Administration, died on December 16, 1978 following a brief illness.

After studying at WPI, Mr. Gaskill received his AB from Ohio University and his MA from Washington University. For many years he was a clinical psychologist with the Veterans Administration in Manchester, N.H.

He was a member and elder of the Presbyterian Church, belonged to the Masons, the Eastern Star, and the American Legion. A charter member of the Londonderry (NH) Chamber of Commerce, he was voted citizen of the year in 1971.

Mr. Gaskill was in World War II, and continued as a lieutenant colonel in the Army Reserve. He served three terms in the New Hampshire legislature. He was a member of Lambda Chi Alpha. A native of Worcester, he was born on Dec. 8, 1903.

Ernest T. Parsons, '27, died in Manchester, New Hampshire on September 3, 1979 at the age of 74.

He was born on Jan. 28, 1905 in Easthampton, Mass. In 1927 he received his BSEE from WPI. He worked 33 years as district transformer specialist, sales engineer, and manager of the Manchester office of the General Electric Company. He joined the Public Service Company of New Hampshire in 1959, serving as commercial-industrial sales supervisor until his retirement in 1969. After retirement, he engaged in consulting engineering work.

Mr. Parsons belonged to Phi Sigma Kappa, Skull, IEEE, the Rotary Club, and the Masons. He was past president of the Tri-County Electric Associates, past chairman of the board of trustees at Camp Foster, and he was a registered professional engineer in New Hampshire.

Frank R. Roeder, '27, a retired civil engineer, passed away on August 20, 1979 in Sarasota, Florida.

He was born on Nov. 20, 1902 in Turners Falls, Mass. After graduating as a civil engineer, he joined the Metropolitan District Commission, Boston, where he was employed until his retirement. He had served the MDC in various capacities including that of draftsman in the Water Supply Commission and a senior civil engineer in the Construction Division.

Frank R. Joslin, '29, a retired system vice president of the New England Electric System, died on August 24, 1979 in University Hospital in Boston. He was 71.

As system vice president, he was responsible for the labor department and various operating functions. He had started work at New England Power Co. in Worcester in 1928. Since that time, he had held increasingly responsible posts throughout his 45 years with the company. He retired in 1973.

Mr. Joslin was born on May 1, 1908 in Oxford, Mass. He was a member of the Class of 1929 and belonged to Phi Sigma Kappa. In 1948 he graduated from the advanced management program at Harvard Business School.

His career with New England Electric was interrupted three times. From 1933 to 1937 he was a general superintendent for two CCC construction camps. He helped develop Myles Standish State Forest in Plymouth and Assonet State Forest. In 1938 and 1939 with the PWA, he helped in the reconstruction of Derby Wharf, Central Wharf, Salem Customs House, and John Derby House. Later he worked for the federal government on the National Research Defense Committee of the Office of Scientific Research and Development.

In 1946, he rejoined New England Electric, and was soon named a vice president of New England Power Co. In 1959, he became chief spokesman of the company's negotiating committee which bargained with unions of all system companies. He became vice president of New England Power Service Co. in 1962 and system vice president five years later.

While a resident of Bedford, he served on a number of local committees, including the school building committee, the library board of trustees, and as chairman of the school committee. He was named director of the Nashua River Watershed Association. He and his wife completely restored the Fitch Tavern, which is now in the National Historic Register.

After retiring, Joslin was named executive coordinator of the New England Construction Users Council. He belonged to the Rotary Club.

George J. Tsatsis, '29, of Massapequa, New York passed away recently.

For many years he was with Consolidated Edison, which he served as division engineer and executive staff assistant. He was born on January 6, 1906. He was a member of the Class of 1929.

John T. Tomkins, '30, of Newport News, Virginia, died last August after a long illness. He was 70.

He retired from the machinery design department at Newport News Shipbuilding in 1974 after 44 years. He belonged to ATO, the Society of Naval Architects and Marine Engineers, the Propeller Club, the James River Country Club, and the Newport Lions Club, of which he was a past president.

He was born on Sept. 17, 1908 in Philadelphia. In 1930 he received his BSCE from WPI.

William E. Grubert, '35, the retired manager of the chemical hazards department of the Royal-Globe Insurance Company, died on August 15, 1979 after a long illness. He was 67.

Mr. Grubert designed the first motor vehicle directional signal as a class project. He also designed Underwood's first noiseless portable typewriter.

During his career he was with Underwood, Elliot and Fisher, F.D.A. Insurance Co., and the Army Air Corps in World War II. After leaving the service, Grubert was employed by Royal-Globe Insurance, New York as senior vice president and manager of commercial lines and chemical hazards department. He retired in 1972.

Mr. Grubert was a cofounder of the New York chapter of the Society of Fire Protection Engineers, of which he was a charter member and a past president. An outstanding fire protection engineer, he was very active in the Conference of Special Risk Underwriters and the National Fire Protection Association. He belonged to SAE and the Drug & Chemical Club. In 1935 he graduated as a mechanical engineer. He was born April 19, 1912 in Westfield, Mass. It is being suggested that if any wish to remember Bill Grubert, that a contribution be made to The Center For Fire Safety Studies, Worcester Polytechnic Institute, Worcester, Massachusetts 01609, in Memory of William E. Grubert. This is a new program which has been set up to award Master of Science Degrees in Fire Protection Engineering and is the first such program in this country.

Albert L. Delude, Jr., '38, a chief engineer at the Providence Granite Co. for 25 years, died on August 21, 1979 in Providence, Rhode Island.

He was born on Jan. 21, 1917 in Worcester. In 1938, he received his BSCE, and was employed by the Metropolitan District Water Supply System Commission, Boston. He was involved with construction at Quonset, R.I. Naval Air Station, Richmond (Fla.) Naval Air Station, and the Marine barracks at Camp Lejeune, N.C. Briefly, he was employed at Prestressed Concrete and Smith Concrete Products, Kinston, N.C. before joining Providence Granite.

Mr. Delude, WPI Alumni Council representative of the Class of 1938, belonged to ASCE. He was a registered, professional engineer.

Sidney F. Perkins, '38, of Athol, Massachusetts died in Worcester on July 29, 1979.

He was a district manager for the Massachusetts Electric Co. for the past 40 years, including the last 11 years in Gardner. He had also been a commander in the U.S. Navy during World War II and in the Korean conflict. Prior to serving as Gardner manager, he was stationed at Massachusetts Electric in Worcester, and at Narragansett Electric in Providence.

Perkins belonged to Theta Chi, the Methodist Church, the Masons, and the Shrine. He was a graduate of WPI's School of Industrial Management and a registered professional engineer in Rhode Island. He was born on June 13, 1915 in Millbury. In 1938 he graduated as an electrical engineer.

William L. Kay, '39, of Point Pleasant, New Jersey, passed away on August 9, 1979.

He was born on Aug. 9, 1916 in Scotia, N.Y. For many years, until his retirement, he was a research chemist at du Pont in Wilmington and Newport, Delaware. He had a PhD from New York University.

Dr. Kay belonged to Lambda Chi Alpha, Sigma Xi, and the American Chemical Society. He graduated as a chemist from WPI.

Malcolm N. Pilsworth, Jr., '47, a physicist at the U.S. Army Natick Labs., Natick, Massachusetts, died on August 11, 1979 in Framingham Union Hospital.

He was born on Sept. 10, 1918 in Worcester, and graduated as an electrical engineer in 1947. During his lifetime he was with the Naval Ordnance Lab., Washington, D.C., Landers, Frary & Clark, and Tracerlab in Waltham, Mass. He held a BA from Colgate, a master's degree from Cornell. He belonged to Sigma Xi and Phi Beta Kappa.

Mr. Pilsworth served in the Navy in World War II. He was active in scouting and with the Masons.

Raymond B. Phaneuf, '49, of Lynnfield Center, Massachusetts died on July 15, 1979 in Boston.

A native of Woonsocket, R.I., he was born on January 29, 1923. During his career, he worked for Worcester Pressed Steel, Clevite Transistor, Itek Corp. and Bar Industries. For the past six years, he owned and operated National Radio Corp., Melrose. He served in the Air Force in World War II, and belonged to Theta Chi. In 1949 he received his BSME from WPI.

Summer 1980

WPI journal

Alumni term trustee nominations being received

EACH YEAR the WPI Alumni Association has the opportunity to nominate alumni for consideration for positions on the WPI Board of Trustees. Candidates are selected through a balloting process conducted by the Alumni Association's Alumni Council, and a Trustee Search Committee of the Association is responsible for assuring that there are enough candidates each year for the positions available. Paul W. Bayliss, '60, chairman of that committee, has recently announced that his committee is now receiving petitions for consideration for nomination for terms beginning in July 1981.

Alumni may submit petitions which contain the appropriate number of verified signatures on or before October 3, 1980. They should be mailed to Mr. Bayliss c/o the WPI Alumni Office, Boynton Hall, Worcester, MA 01609. Questions regarding the procedures for the formal submission for proposals should be directed to Stephen J. Hebert, '66, Alumni director, at WPI, telephone (617) 753-1411.

Editor: I found the article, "A room at the top," about Boynton Hall's clock tower (in the Winter 1980 *Journal*) very refreshing. I'm glad to see that the wall of graffiti was left untouched during the recent renovations, at least so far. I sincerely hope it will be left as is. Nearly everyone has left his name and date of visit on some obscure landmark at some time in his life, secretly hoping it will be found and recognized, hopefully years later. I suppose it's a way of immortalizing some small part of ourselves. To paint over these "fossils" of WPI students would be truly sad. Obviously that small piece of wall has brought some happiness (perhaps sadness) to some, and someone felt it could touch more people (hence the publication of the article in a prominent place in the *WPI Journal*.) Please help see that this small unobtrusive spot is left as it has been for these past years, to be enjoyed by future sentimentalists. Thank you for your concern and the article.

— WALTER A. PERKINS, '75
Keene, NH

Editor's note: The graffiti are still there, and probably will be for the next century or so. In a related vein, someone recently asked why WPI had gone to all the trouble and expense to put sheet-rock on the walls of that nearly inaccessible and unusable room in the tower. Building code requirements, that's why.

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Editor: H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Designer: H. Russell Kay

Typesetting: County Photo Composing, Inc., Jefferson, Mass., and Davis Press, Inc., Worcester, Mass.

Printing: Davis Press, Inc., Worcester, Mass.

Alumni Publications Committee: Donald E. Ross, '54, chairman; Robert C. Gosling, '68; Sidney Madwed, '49; Samuel W. Mencow, '37; Kathleen Molony, '77; Stanley P. Negus, Jr., '54.

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The WPI Journal (USPS no. 0148-6128) is published five times a year, quarterly plus a catalog issue (identified as no. 2) in August. Second Class postage paid at Worcester, Massachusetts.

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On Gossamer Wings ~

by Paul B. MacCready

The discipline of seeking high-performance on puny human power lets you see and understand just how efficient vehicles can be.

Paul B. MacCready, president of AeroVironment, Inc., and winner of the two Kremer prizes for human-powered aircraft, gave this address at WPI's Commencement in May. Since then, he has unveiled the next aircraft in the Gossamer series — the Gossamer Penguin, powered by solar cells and batteries.

HUMAN-POWERED FLIGHT has been a goal of mankind from as early as man had developed to where he could envy the birds. However, once the Wright brothers mastered powered flight in 1903, people realized that this old aviation goal of human-powered flight was not all that important. Engines, as powerful as 100 or 1000 men, were then available to move aviation to achievements which were never conceived of except by science fiction writers. A few enthusiasts kept the dream of self-powered flight just barely alive.

Then in 1959 a remarkable, creative event occurred. A British industrialist, Henry Kremer, put up a prize for the first sustained controlled human-powered flight (i.e., the human-powered analog to the Wright brothers' 1903 flight). During the 18 years the prize stood unclaimed, it was increased to nearly $100,000, the largest prize in aviation. Once Kremer established the prize, it was inevitable that someone would win it. But it was not inevitable that anyone would put up such a prize — that was a unique and creative event.

In the summer of 1976 I got the idea of how to win the prize and, with a team of a dozen friends and relatives, created the Gossamer Condor. It won Kremer's prize a year later. To our astonishment, the aviation establishment showed great enthusiasm for this esoteric and impractical feat — and the vehicle went to the Smithsonian National Air and Space Museum in Washington, where it hangs next to the Wrights' aircraft and Lindbergh's Spirit of St. Louis.

We had found Gossamer Condor was a fun airplane to fly. You don't have to be either an athlete or a pilot; a 60-year-old woman flew it, as well as a 10-year-old boy. The dark side of having the aircraft hang in the Smithsonian, for us, was that we could no longer fly it. So I calculated what an improved version would do if made more accurately. The computations showed that our primary pilot, Bryan Allen, could probably keep it aloft for five hours, while we ordinary, out-of-condition mortals could fly it five or ten minutes. This sounded like fun, but we were too lazy to start work on Gossamer Albatross immediately.

Mr. Kremer announced a new prize: £100,000 (more than $200,000) for a human-powered flight across the English Channel. We suspect he thought winning this one would take another 18 years; we felt winning it quickly would be a piece of cake! The basic design of our aircraft was already calculated on the back of an envelope. I should mention that a WPI 1951 alumnus, my brother-in-law Kirke Leonard, was a key member of the Gossamer Condor/Gossamer Albatross teams, and in fact did the primary development work on the use of advanced composite materials in the Gossamer Albatross. In 1979 the DuPont company sponsored our efforts, we got to England, and Bryan Allen successfully flew the Gossamer Albatross across the Channel, miraculously doing it on the first try.

Incidentally, this cross-Channel flight was the human-powered analog to Louis Bleriot's first flight across the English Channel in 1909 — a flight which greatly stimulated aviation in Europe, and which is regarded by many Europeans as a more important milestone than the Wright brothers' flight. The next early milestone of powered flight, which everyone agrees to, was Lindbergh's Atlantic crossing. (However, neither Henry Kremer nor Bryan Allen has evidenced the slightest interest in continuing with human-powered analogs to early aviation milestones!)

While working on these projects, we focused single-mindedly on the simple goal of winning the prizes. Since the events, we have had time and occasion to try to view the projects from a broader perspective. We're beginning to realize that our projects were pretty special. They demonstrated approaches to solving technical problems and handling management tasks which may be applicable elsewhere. They gave, to us and others, perspectives which may be rather important. All this does not mean we are unusually bright or efficient. In fact, one of the important perspectives which emerges is that rather ordinary people, with a bit of luck and a strong drive, can literally "reach for the stars" and succeed.

As I THINK BACK over the Gossamer aircraft programs, there are several main points which stand out. The first of these is this: *You can do amazing things in efficiency and energy conservation when you are really pushed* — and the things you can do may be very important in these days of non-infinite energy resources.

In 1976, before the vacation when I thought up the Gossamer aircraft, it had never occurred to me (or others) that a person could fly on just 1/4 horsepower — or that you could make a 96-foot wingspan airplane that weighed only 55 pounds. But I was pushed by the lure of Kremer's prize money, because I was in the uncomfortable position of having guaranteed a friend's debt which couldn't get paid. I think Kremer put up his prize money for just this reason — to push (or lure) people to reach the goal he had in mind. (Our project turned out to be more expensive than hoped, so much of the profit was an illusion. But the initial push was there.) And now I am delighted to have had that negative pressure of the debt — it caused the launching of a unique program. It's one more example that almost any circumstance can eventually be turned to benefit.

You can certainly make a better human-powered airplane than the Gossamer Albatross, but any human-powered airplane will probably be so large and flimsy that it will not have an adequate margin of safety. We now find that our thoughts about future developments do not concern human-powered aircraft. Our aviation thoughts are about vehicles operating on two or three horsepower — 10 times what a human puts out, but still small enough power output that it can be derived from battery or solar power, or even from a large model airplane engine. My dream is for a silent electric plane, battery or solar, with which I can soar with hawks, fly with migrating ducks, and cruise the shoreline at 100 feet.

But there is another area of development which is of greater interest and greater importance — ultra-efficient surface transportation. Virtually everyone on the Gossamer Condor/Gossamer Albatross team is also involved in the development and racing of streamlined bicycles. Each year, in a competition in southern California, the Internation Human Powered Vehicle Association sponsors exciting races for these exotic vehicles. The vehicles all involve enclosing the occupant (or occupants) in a streamlined fairing, rolling on bicycle-type wheels, with bicycle pedals and sprockets or equivalent mechanisms. And each year you see man moving faster across the surface of the earth under his own power than he has ever moved before.

A year ago, a two-person machine first exceeded 55 mph — and, in a touching ceremony, the drivers were awarded honorary speeding tickets by the California State Highway Patrol. This year, a single-person machine went faster than 55 mph, while a tandem machine exceeded 100 kph, almost 63 mph. That same two-person machine, in a long-distance hour race, went 46 miles — a mind-boggling feat (whether feat or feet!). These bikes make an ideal university project; I'm surprised that so far only three schools have gotten involved.

These vehicles at present are no more "practical" than our human-powered aircraft, but in these surface vehicles you can see the rudiments of something very practical. The discipline of seeking high-performance on

Once Kremer established the prize, it was inevitable that someone would win it. But it was not inevitable that anyone would put up such a prize — that was a unique and creative event.

puny human power lets you see and understand just how efficient vehicles can be — and with this understanding you are free to use various power sources, such as human pedaling, an electric motor powered by a battery or solar cells, a tiny gasoline engine, wind-aided motion, even a large rubber band, or combinations of these. In mass production you could have an all-weather vehicle, retailing at just a few hundred dollars, which protects you in a crash-resistant cocoon, powered say by an eight-pound battery/electric motor system augmented by pedaling as desired, in which you could commute at about 30 mph while maintaining your body in good physical condition. You may think such a Mickey Mouse device would never fit into our present transportation system . . . but just wait until OPEC turns off our oil imports for three or four months. Our perceptions can then change very quickly.

The mood of the country now seems to be evolving toward a willingness to go to war in the Middle East in order to maintain our dependence on the oil and on the volatile politics and religions of that area. It seems more rational, to me, to play with new techniques in transportation, and with new life styles, rather than go chasing so hard after a vanishing resource (and, incidentally, one which pollutes our atmosphere).

THE SECOND MAIN POINT I learned from the Gossamer aircraft is that *it is useful to approach a problem* with *a knowledge of fundamentals but* without *the deadening influence of prior detailed expertise and prejudice.*

As I look back at the Gossamer Condor/Gossamer Albatross projects, I see that the main factor which made them work was the vehicle's structure — and the main reason that we came up with the right structure was that I had no background in aircraft structures. Every other serious team had excellent credentials in

You or I have the best chance of thinking clearly in new areas, where there is little precedent. Such areas are the most fun to work in, because you can make a significant impact without years of effort.

aircraft structural design, and what every team built looked, structurally, like a regular airplane or glider. But that was not the right approach for this sort of pioneering vehicle. My background included some fundamentals in beam bending and buckling, and those fundamentals were helpful. But basically this design was started with a clean slate (and with some knowledge of wire-braced indoor models and wire-braced hang gliders).

I would rather fly in a jet airliner designed structurally by members of these other teams than by anyone with my poor credentials in structures. There is, of course, a vital role for the experts, but if they are getting into a new area they have to recognize that their expertise may inhibit their search for solutions. After thinking about the role of structures experts in human-powered airplanes, I began noting various instances where knowledge stifles solutions, and noting that this happens rather more often than expected.

For example, I was discussing with a 10-year-old how you put a needle on water and have the surface tension keep it afloat. The question was, how to set on the water the largest possible needle which could stay afloat. How would you lower it and release it delicately? With your fingers? With tiny wire hooks? With an electromagnet? After a little discussion, the 10-year-old said, "freeze the water, set the needle on it, and let the water melt." Would that really work? I suspect so. But I realized that I could not have thought of that solution because in my youth I had set needles down with my fingers, and my mind was blocked toward ingenious ways of setting the needle down carefully. The 10-year-old, even though afflicted with dyslexia, did not have my blinders on. He understood what question I was asking better than I did — the question was how do you get the largest possible needle to be floating on the water, not how do you set it down. I had introduced an unnecessary constraint.

A Nobel laureate in physics told me recently that he noted the greatest creativity is found in young physicists, and this creativity usually involved ignoring a presumed constraint which their elders had always assumed necessary. As a last note on the needle incident, when I told the story to a friend, he said that when he was 10 he set the needles down on the water with a strap of toilet paper, which quickly dissolved away.

10-year-olds have another attribute. They ask questions and are perfectly happy to ask "dumb" questions (which may not turn out to be so dumb). As you get older, you think maybe you should know the answer and so you are ashamed to ask a question which might label you stupid. Many of the most effective grownups feel secure in themselves and are comfortable asking those "dumb" questions . . . which helps their effectiveness.

Now, when confronted with a new problem, I find myself asking, "What would a 10-year-old say?" But I know in most cases I cannot come up with the 10-year-old's approach because of the years of experience which

have coated over my originality. You or I have the best chance of thinking clearly in new areas, where there is little precedent. Such areas are the most fun to work in, because you can make a significant impact without years of effort. After a field is established, and particularly after it is so established that they teach it in college, the excitement is lessened, even though the importance of the field may have grown larger. To prepare yourself for the new areas, the exciting subjects which have fallen through the cracks of established fields, you want a good background in fundamentals and in how to get jobs done — things which the WPI Plan has had clearly in mind during your years here.

THE THIRD MAIN LESSON of the Gossamer aircraft is that *technical aspects usually make up only a small percentage of a total program*. Business management, determination, media interaction, timing, and luck may represent the major factors. The rule that invention is 2 percent inspiration and 98 percent perspiration is surprisingly accurate. I won't belabor this point except to note that, in the Gossamer Albatross program, probably 90 percent could be called business management — finance, personnel, hangar leases, logistics, backup boats, communications, etc. The goal was to win the prize, so I did whatever moved the project best toward that goal — and that meant only a little new technology but a lot of project management.

The early morning flights at remote airports, watching the big, miraculous bird slip silently through the still air — these represented magic moments.

I MAY HAVE GIVEN you the feeling that the Gossamer Condor/Gossamer Albatross projects were just work. The work came first (my time was actually spent playing hooky from my company, AeroVironment), but there was much more to the project than work. It was fun at all times. It didn't take me away from my family; rather my family got deeply involved in it, with my sons being the main test pilots. It got me involved with many new friends.

The early morning flights at remote airports, watching the big, miraculous bird slip silently through the still air — these represented magic moments. There was a flavor of pioneering throughout, which I've only come to appreciate recently since I've had time to read about the history of aviation in the first 30 years of this century. Then there was success, even some small financial reward, and an appreciation for the feat by the public which still seems to us more than is deserved.

All this introduces my last point, which is that *work can be fun if you pick a challenge you are excited about*. I recently heard Edwin Link, an aviation and oceanography pioneer, quoted as saying he never worked a day in his life — meaning it was all just fun. I think you too will find this to be true. Eventually you will find that everything you have learned and will learn in the future will have value. Politics, exercise, physiology, history, art, etc. — it's all as important as engineering . . . eventually.

Your WPI Plan experience has given you a unique start; you are emerging into a period when there are great challenges. You have merged academic technology, humanities, and real-world industry. It will be an exciting next half-century, the most exciting and best there has ever been.

WPI

"The Electric Disco Chicken"...?

Bob Goodness, '70, is a man of many facets. From 1973 through 1976 he designed and manufactured hang gliders. Currently he is a tool designer for General Motors in Framingham, Mass. But you'd never guess what his latest venture is.

For the past year or so, Bob has spent a major part of his spare time making an animated film entitled "The Electric Disco Chicken." Honest. It premiered February 1 at the Boston Film/Video Foundation, and its outrageous comic appeal generated, within a few weeks, two offers to air it on Boston TV stations. It has won prizes at both the New England Film Festival and at the Toronto Film Festival.

A year may seem like a long time to produce a 4½ minute film, but that's not uncommon for animation by an independent filmmaker. According to Bob, "there's actually about three minutes of animation, where chickens dance a 'Saturday Night Fever' type line dance, and that three minutes required over 5,000 individual moves of the chickens."

Perhaps we should make it clear here just what kind of chickens these are that Bob is talking about. They're the kind you find living at the neighborhood supermarket — plucked, dressed, and without benefit of heads or claws. Frank Perdue would understand.

"I found myself spending about three hours," Bob continues, "to film each ten seconds of animation. Not only did this require a lot of patience, but it also took a high tolerance for discomfort. The filming sessions frequently went late into the warm summer nights, and having four uncooked chickens under hot spotlights for hours at a time stretched my tolerance to the limits. *(Editor's note: Now how does that commercial go? 'It takes a tough man to make a tender chicken'?!)* One night I even tried spraying them with Lysol; but I quickly changed to washing them in hot soapy water between scenes. I used about 20 chickens and ate maybe 6 of them.

"The other major time consumer, besides the filming and construction of a chicken-scale disco dance floor and lighting, was producing an original disco song. I had to locate a musician who would work within my limited budget, and unfortunately he turned out to be somewhat temperamental. We spent about 12 hours in an 8-track recording studio in Newton between Christmas and New Year's 1979 — a full month behind schedule. The music did turn out very professional, but the delay hurt my distribution efforts. Gary Shapiro, '73, and his wife Pam helped out with the background vocals. The music was the most expensive part of the film, bringing the total cost up to $800, not counting the cost of driving into Boston three to four days a week."

What would motivate Bob to spend that kind of time and money to make a 4½ minute film? Basically, it was art for art's sake. "I don't bowl, watch TV, or follow sports," Bob says. "I've maintained an interest in the arts for many years. In the past I've done some sculpture and furniture design.

"Animation has had a major increase in attention as a medium of expression in the last ten years, with independent filmmakers like myself working all over the world. Some of those filmmakers have given up their independence and joined government-funded studios like the National Film Board of Canada, or Zagreb in Yugoslavia, because generally there are very few sources of financial support for independents.

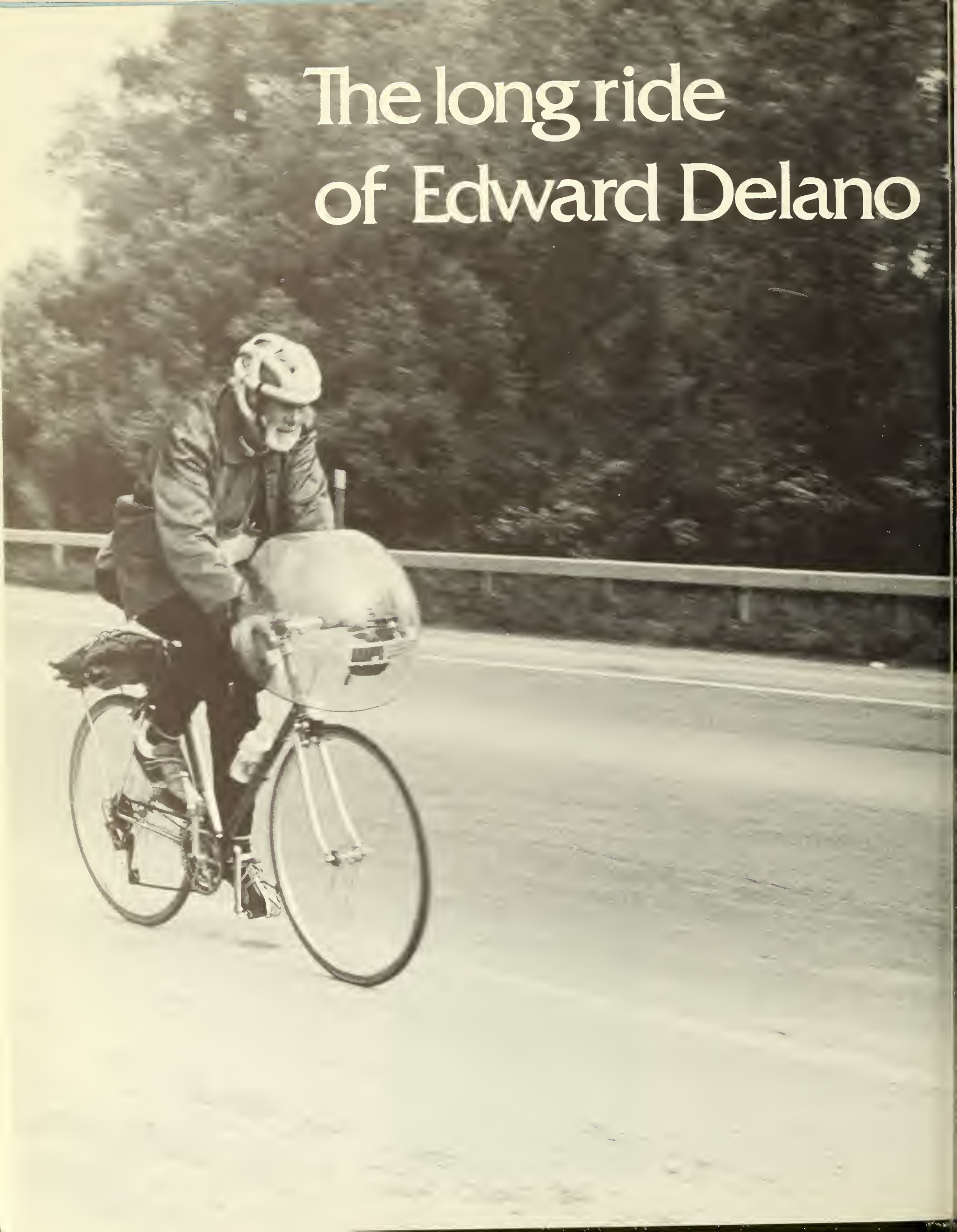
"PBS in this country recently presented an opportunity which could have returned me about $10,000 for my film. Unfortunately, because of the delay with the music, I didn't have enough time to get the film through PBS's screening process. And even though this sounds financially promising, it was a pretty rare opportunity, and PBS program directors have the final say on which films are selected. Independents generally complain that the selection process is not democratic enough for what is supposed to be the 'Public' Broadcasting System.

"There are two other possibilities for making my money back," continues Goodness. "The first is cable TV. The second is a lead I've got about the owner of a fast-food chicken restaurant chain in California, who has wanted an animated TV commercial for years. Neither of these promises to pay more than PBS. And beyond those opportunities, there are only film festivals and the two Boston TV offers — all of which pay only a small portion of my expenses. They're just token payments, really."

But making money from the film isn't everything. "The real satisfaction I've received has been in the creative process . . . and being in an audience when they get hysterical watching the Electric Disco Chicken do his thing — that's payday for the psyche!"

WPI

The long ride of Edward Delano



by Roger N. Perry, Jr., '45

AT FIRST LIGHT on the morning of May 1, Edward R. Delano kissed his wife goodbye, climbed on his bicycle, and headed eastward from his home in Davis, California. Just over a month later, he ended his trip. He had bicycled 3100 miles to attend his class reunion at Worcester Polytechnic Institute.

THIS WOULD HAVE BEEN quite an accomplishment for any person. But Ed Delano is a member of the class of 1930, and he had ridden a bicycle across the united states to attend his 50th college reunion, at the age of 75. Little wonder that he was seen off by television crews and newspaper photographers at that early hour.

He had little doubt that he would complete the trip. After all, he'd returned to his 40th reunion in 1970 on the same 15-speed bicycle. When his classmates jokingly asked him then if he'd return for the 50th by the same mode of transportation, he said, "If I can throw my leg over the saddle, I'll do it." And Ed is a man who keeps his word.

Roger N. Perry, Jr., '45, is director of public relations at WPI. After writing this story, he and his wife went on vacation in Canada — and took their bikes along with them.

AS A YOUNG MAN, Ed had a passion for long-distance bike riding, but gave it up when he went to college. When he was 58, he decided to go back to the bike. He joined one of the many bicycle clubs on the West Coast and entered serious competition in road races and time trial races. By the time he retired in 1970, after 37 years as a California highway superintendent, Ed was deeply involved as a serious bicyclist. That spring, he got himself into condition for his first cross-country ride. "It was something I had to try. I wanted to prove to myself I wasn't too old to do something I really wanted to do," he said, looking back at his 1970 ride.

Just to keep in shape for his planned ride back to his 50th, Ed rode to Quebec in 1975, a distance of 3400 miles. That same year, he competed in the Over 60 class in the European Veterans World Road Cycling Championships, placing 15th out of 60 entrants. The following year, he finished 9th in the same race. He has a habit of bettering his time as he gets older.

Along the way, he acquired a nickname on the bicycle racing circuit, the same name given to a Stockton, California, bank-robber who escaped by bicycle. When Ed shows up for meets on the West Coast, everyone knows him as Foxy Grandpa. "The name stuck," he commented, "and I kind of like it. I even have it stitched on my racing shirt."

About his real name, Ed comments, "my family has always pronounced it de-LAY-no, with the emphasis on the second syllable. That fellow who lived in the White House for a few years, the one who had this for a middle name, must have come from another branch of the family, or else he never learned how to pronounce it.

"Rosamond, my wife, is very supportive of my passion for bike riding, but she's not a rider herself. When we go out together, we drive the car. But I prefer the bike, and I ride about 20 miles a day year-round, just to keep in shape."

ED HAD PLANNED HIS TRIP to cover the same route he'd followed in 1970, and he figured on covering the 3100 miles in 31 days.

He left home that May-Day morning, picked up Interstate Route 80, and headed toward the Rocky Mountains. I-80 was to be his route for the next two weeks, halfway across the country. "Bicyclists are allowed to ride the shoulder of that road through the West, and it

makes a beautiful trail for cyclists," he noted. "The road is new and in good condition, and the grades are long and gradual through the mountains."

Ed made the first of many long-distance calls to me on his third night out, reporting that he'd reached Lovelock, Nevada, a distance of 272 miles. From then on, I began to feel he was part of my family. I kept an atlas near the telephone at home to chart his progress. In the office, we began sticking pins into a map of the country, with little flags to indicate the town, date, and distance covered with each telephone report. Another map was hung in Gordon Library so others on campus could follow his progress.

In those first calls, Ed reported taking time out to repair flat tires. He had a total of six flats, and they all occurred in the first week. He encountered a minor delay while crossing the Continental Divide. "The grade wasn't bad on I-80 but, three miles from the top, the road surface was glazed with ice and I had to walk to the summit. Then there was another three miles of ice on the down side before I could ride again. But from there on, it was almost all downhill to Iowa."

Calling from Kimball, Nebraska, he reported a delay when three inches of snow fell and kept him in Laramie, Wyoming, for a day. "It gave me a chance to rest up, but it put me behind schedule," he said. On his next call, Ed told of leaving a Nebraska motel at dawn with a cold rain falling. By the time he reached the next town, 15 miles along the route, he'd decided it wasn't worth riding in the cold rain all day, so he checked into the first available motel, losing another day. "Riding in the rain doesn't normally bother me. In fact, it's a lot more comfortable than riding through a heat wave. But that day in Nebraska it was just too cold and raw to take a chance."

BEFORE THE TRIP, Ed had indicated his willingness to capitalize on the publicity value of a man riding a bicycle 3100 miles to his 50th reunion. "After riding this distance twice before," he observed, "I'm not trying to prove anything to myself. So if the ride can help publicize WPI, I'm glad to pitch in."

Taking our cue from Ed, the WPI public relations office alerted news media. They were indeed interested in hearing about his trip. The wire services covered his departure from Davis, and WPI's clipping service soon began returning news items from all over the country. Once he reached the plains, where the population is more concentrated than in the western mountains, he began meeting reporters and TV crews again.

At WPI we were concerned that news coverage enroute might slow him down and put him further behind schedule, so we were somewhat cautious in pacing the interviews, arranging, whenever possible, for interviews to be held only after he'd checked into a motel for the night. News media along his route were alerted a few days before he was scheduled to pass through their area. If they were interested, and most were, I'd give Ed the reporters' names and telephone numbers when he called me periodically to report his progress. Then he'd call ahead to the reporter and either give an interview by phone or set a meeting point along the way.

"I became a pretty good judge of reporters after a while," said Ed. "Of course, they all asked about the same questions, but some were a lot better at it than others."

At Ed's request, we specifically did not arrange any alumni welcoming committees enroute. He was concerned that these could slow him up and perhaps keep him up too late in the evening. And since he never knew where he'd be staying until he arrived, it would have been difficult in any case to set up special events.

EXCEPT FOR THOSE half-dozen flat tires in the early part of the trip, he had no mechanical troubles. Ed carries a tire patching kit, a spare tire, a pump, and a few specialized bicycle tools which he knew he wouldn't be able to borrow from a friendly mechanic's tool box in case of trouble.

He credits his lack of mechanical trouble to foresight. "I took my bike to the best bicycle mechanic on the West Coast, Spence Wolf of the Cupertino Bike Shop. I told him to go over the whole thing and replace any part that wasn't in first-class shape.

"My touring bike is the best money can buy," Ed continues. "The frame was made by Ciano Cinelli of Italy, who has now retired. I bought it in 1969 for just under $300. Today it's probably worth about $1300, and if I hang on to it long enough it will become a collector's item. The complete bike weighs about 28 pounds. It's one of three I own. For competition racing, I have a lightweight bike, which weighs only about 19 pounds. The third bike I use to get around town."

One of the features of Ed's bicycle which distinguished it from every other on the road was a plastic bubble mounted on the handlebars. "That's a Zipper fairing, which I'm trying out for the first time. It's supposed to cut down the wind resistance by a few percent. Since it only weighs 14 ounces, I figured it was worth a try on a 3100 mile trip. Perhaps the value is mostly psychological, I don't know. It's a fact, though, that most of a bicyclist's energy is expended overcoming wind resistance."

He travels light. "I'm an executive traveler. Besides my emergency spares, I carry a tooth brush, enough clothes to keep warm, and a lot of travelers checks," was a story he gave frequently to reporters along the way. "I always stayed in motels. When I was lucky, I'd find a motel in the middle of town where I could find a restaurant, a laundromat, a place to buy a newspaper, and a telephone."

The newspaper did double duty. After he'd caught up on the news of the world, he'd spread the paper on the floor of his room so that, when he oiled the bicycle chain and mechanical linkages each night, he wouldn't drip on the carpet. "I always kept my cycle in my room so I could know it was safe," he said. "I'm not much of a television watcher, so usually I'd lean the bike up against the TV set."

"The grade up to the Continental Divide wasn't bad, but three miles from the top the road surface was glazed with ice, and I had to walk to the summit. There was another three miles of ice on the down side before I could ride again. But then it was all downhill to Iowa."

AFTER FOLLOWING HIS PROGRESS across country, I wanted to see firsthand how Ed lived as an 'executive tourist.' As he approached New York State, I made arrangements to drive out and meet him on the road. He told me the route he'd follow from the Pennsylvania-New York border, where he was spending the night.

I left Worcester early the next morning. By mid-afternoon, I'd left the New York Thruway and picked up U.S. Route 20, then Alternate Route 20. I knew that he'd be somewhere along this stretch. I passed through towns named Geneseo and Warsaw without seeing him. Realizing that we'd need a motel along the route, I began noting the mileage as I passed each one, mentally sizing up its quality.

After driving through Varysburg at about 5 P.M., I began to wonder if somehow I'd missed him. Perhaps Ed had been stopped at a store just as I'd passed by. But no, things were just fine and, five miles beyond the town, there he was, pedaling up a slight grade through the beautiful upstate New York farm country.

It was a happy reunion there beside the road. Mine was the first familiar face Ed had seen in three weeks. For my part, I was delighted to see how well he looked after riding 2700 miles since he left home. We compared mileage figures and found that his estimated distance to go was only 5 miles more than my trip that day. (Ed figures his distance by adding up the little numbers printed between towns on a road map.)

He was happy to learn that the Varysburg Hotel was only five miles ahead of him, because he was ready to call it a day. I drove back, and he arrived nearly as quickly, because it was all downhill to the town. But we were in for a disappointment. The hotel was completely filled with construction workers from a nearby highway project. The next motel was 16 miles farther on, and I recalled that it hadn't looked very promising. Also, the road was mostly uphill at that point.

"Tell you what," I said. "Put your bike in the back of my pickup truck and let's go find a good motel. I can bring you back to this same starting point in the morning." As we drove north, we saw a sign for a Holiday Inn at the Thruway in Batavia. "I always like to stay at Holiday Inns," commented Ed. "They have everything I need, and they treat me royally." We had better luck here, and they had two rooms available for us.

"Do you ever have trouble getting a room?" I asked, looking over Ed's functional cycling attire and three-week-old beard. "No," he said, "but I do have a specific technique I usually use. I put on a tired look — but with a sort of wistful smile — and I ask, 'Would you have a room for a weary cyclist who's been on the road since dawn?' It hasn't failed me yet."

After we'd checked into our rooms, both of us were ready for dinner. "First, I could go for a nice cold beer,"

said Ed. "Then we'll take a look at the menu."

"What does a cross-country bicycle rider eat?" I asked. "I eat everything," was the prompt answer, "but not too much of anything. I like a big breakfast. That's really the best meal of the day because it has to last me a long time. Then during the day I usually stop at a store and buy an apple, a banana, some grapes, and sometimes I just sit on the curb and eat them right there. When you ride a bike, you lose all your dignity. I can't carry much with me, so I just buy what I can eat right away. I snack that way about every two hours."

For dinner that night, Ed had soup and a salad. There was a salad bar, and he tried a little of everything except the hot peppers. "A salad is really a well-balanced meal. It's got everything you need."

As we discussed food, it became clear that he understood the nutritional value of everything he ate and that, on the road, he was careful to eat what he needed for strength and stamina. "I'm not a health food nut," he said. "I enjoy just about everything. While I'm riding, I don't eat much beef, though. I never use sugar out of the bowl, and I don't add salt to my meals. There's enough in most food, anyway."

As we returned to our rooms on the second floor, Ed ran up the stairs, two at a time. "Always run up stairs," he said. "It's good for you." This from a man who had pedaled nearly a hundred miles that day!

He called California, a nightly ritual, to tell Rosamond where he was and to check on the news of home. Then he oiled his bicycle. Once he'd completed his evening routine, he relaxed in a chair and we talked a bit. I commented on his beard, which was beginning to look distinguished. "I don't like beards," snorted Ed. "But on a trip like this, I carry only the essentials, and even a razor adds weight. Now the beard is starting to itch, and one of the first things I'm going to do when I get to Worcester is go to a barber shop and get a shave, a hot-oil shampoo, a haircut, and a facial . . . the works! But you know, even though I don't like beards, I find having one on this trip is an asset. Somehow the beard seems to give me credibility."

"How many people do you find in your age bracket in bicycle competition," I asked, when the conversation turned to his other bicycling activities.

"There's one guy from Florida who's 84, and he still rides in competition. If he ever decides to retire, then I guess I'll be the oldest competitive rider in the country. But there are a lot of riders not too much younger than I am, and each year there seem to be a lot more.

"When you think about it, bicycle riding is one of the best things you can do to keep in good physical condition. There's no danger of damaging your legs and feet, like you can do in running. Besides, you can go about three times as fast and see three times as much on a bike. If you ride hard, you give the old heart a good workout. It's like any muscle in your body, the more you make it work, the stronger it gets."

Does he smoke? "I used to smoke, but I guess you could say I didn't do it for a living. It would take me three or four days to finish a pack of cigarettes. Then one day I just decided I didn't want to smoke any more, and I haven't touched one since. Now I find the smell of tobacco repulsive."

Once he was back on the highway, our brief visit was over. Ed quickly disappeared from sight in my rear-view mirror. It would take him five more days to reach where I'd be at dinnertime.

HAD ED NOTICED any changes since 1970 as he retraced his earlier route along the old U.S. numbered highways in the eastern half of the country? "I hardly recognized the same route. There have been a lot of changes in the buildings along the roads. But the biggest change was the condition of the roads themselves. Some of our Midwestern states should be ashamed of what they call highways. And I speak as someone who spent 37 years in the highway business!"

Safety is a matter of vital concern to a bicycle rider in an automotive society. "My professional highway experience makes me particularly aware of hazardous situations, and I just don't let myself get into them," he said. "Intersections are the most dangerous, and you have to keep your wits about you. I always ride on the shoulder of the road, even though in many places it's a pretty rough ride. I wear protective headgear to keep the old head in one piece if I should take a spill. I never ride at night; that's suicide.

"Dogs are about the only hazard you can't anticipate. There's something about dogs and bicycles. They must think you're running, and they want to chase anything that runs. When I see a dog, I size up the situation. If I can beat him on a sprint, I pour it on. If he's got the lead on me, I'll sometimes coast without moving my legs and maybe he'll ignore me. I've been pretty lucky so far."

Ed wasn't so lucky a year and a half ago. He was hit by a truck. His bike was demolished and one leg broken in two places. "Fortunately it happened near a hospital with an excellent orthopedic surgeon, and he put me back together real fine. When I told him I wanted to get back on the bike as soon as I could, he had me come back so he could graft on some extra bone to give my leg more strength."

Up to this point, I had considered Ed a remarkable person to have already ridden a bike so far at his age. But to do it after just recovering from a bad leg-break? My admiration grew.

He looked at his watch. It was nine o'clock. Time to turn in. Ed's day, and mine too the next morning, began at 5 A.M. "I like to start as early as I can, but most dining rooms don't open until six," he said. This one was no exception. We were the first customers.

I was interested to see what Ed's biggest meal of the day would be. First he had a large glass of orange juice. Then a bowl of cereal. "I try to get raisin bran, because it has a lot of bulk to it," he said. The next course was a plate of eggs with coffee.

We struck up a conversation with the waitress, who didn't have many other customers that early. "I'm riding a bicycle from California to attend my 50th class reunion at Worcester Polytechnic Institute," he announced to her, carefully enunciating the name of his alma mater. "Now be sure you spell that right," he added with a twinkle.

As we both finished, he noticed that I'd left a sprig of parsley on my plate. I never eat parsley. "It's good for you," he said. "You should always eat everything."

Ed speaks like a man who means what he says.

I ate it.

By 6:30, with breakfast behind us, Ed was chafing to be on his way. Checking out was easy for him because, except for the bike parts on a carrier, his luggage is spread throughout the seven pockets in his cycling shirt.

Once he was back on the highway, our brief visit was over. He quickly disappeared from sight in my rearview mirror. It would take him five more days to reach where I'd be at dinnertime.

SOME OF THE PHOTOS I'd taken of Ed were used by the *Worcester Telegram* the next morning. This was one of several reports on Ed's cross-country progress printed by the Worcester newspapers. As he neared Worcester, it seemed that everyone I met knew about his trip and was rooting for him. Perhaps he had kindled that spirit of adventure which lies dormant in most of us as we become entwined in life's normal routine.

Fair skies and tailwinds blessed the final leg of his journey, and by Sunday evening, June 1, he was in Springfield, just 60 miles short of his goal. However, the official welcoming ceremonies were scheduled for noon on Tuesday, based on earlier estimates of the time he'd need to cover the remaining distance. "No problem," said Ed. "I'll just loaf along to Sturbridge, and that will give me plenty of time to do the last 20 miles on Tuesday morning."

For more than a month Ed Delano had ridden alone. "That's the only way to ride. No two people ride at the same rate of speed, so one is always lagging behind the other and making it hard to keep up a comfortable pace." But he did not ride alone for those last seven miles.

In Auburn, he was met by Alumni Secretary Steve Hebert, '66, and News Bureau Manager Steve Donahue, '29, who had known Ed in his college days. They were driving a restored 1953 Buick convertible with signs taped to the sides identifying the grizzled bicyclist. Also in the entourage was Douglas Thompson, '78, supervisor of the WPI television studio, who videotaped the last leg of Ed's trip and in the next two days prepared a 15-minute documentary of Ed's trip for showing at Reunion. Together with a Worcester Police Department motorcycle officer, they escorted him right through downtown Worcester, past City Hall, to the WPI campus.

According to Steve Hebert, people on the sidewalk waved and drivers beeped their horns as they recognized that man on the bike they'd been reading about in the papers.

When radio reports from the escort indicated that Ed's arrival was imminent, the bell atop Washburn Shops was rung to let everyone on campus know it was time to gather in front of Boynton Hall for the grand finish of this historic ride.

At 11:40 on the morning of June 3, 1980, Ed Delano rode up the long sweeping drive from Boynton Street, passed under a banner marking the official end of the line, and waved his hand in a happy salute. Whatever words he may have said in that moment of personal triumph were lost forever in the cheers of the crowd.

In 1970 he said, "If I can throw my leg over the saddle, I'll ride back for the 50th Reunion." And Ed is a man who keeps his word.

PRESIDENT CRANCH, in his official welcome, noted that Ed Delano obviously had the physique of a Tarzan and the instincts of a homing pigeon. Alumni President Jack McCabe, '68, presented Ed with a plaque showing his cross-country route superimposed on a map of thc United States. City Councillor Sara Robertson, representing Mayor Jordan Levy, presented Ed with a kcy to the City of Worcester. She mentioned that, as a native Californian, she was particularly pleascd to be part of the welcoming ceremonies. And to prove her sincerity, she planted a big kiss right on his month-old beard!

Rick Ferron, '82, presented Ed with a certificate proclaiming him an honorary member of the WPI Commuter's Association. He next gave Ed a tee-shirt bearing, on the front, the official symbol of the group and, on the back, the words FOXY GRANDPA, HONORARY COMMUTER.

Ed's response was brief, but heartfelt. He had kept the promise he'd made to his classmates ten years earlier. This was probably his last cross-country ride, because there's no real challenge left when you've done it three times. He was proud of his alma mater and hoped that perhaps his trip had helped make more pcople across the country aware of WPI. And perhaps, too, his trip might have been an inspiration for a few retirees to take up bicycling.

THEN Food Service Manager Scott Migala stepped forward with a huge cake, appropriately decorated, to be shared by the whole welcoming crowd. After posing for TV cameras and newspaper photographers, there was a small, informal luncheon in Morgan Hall. Among the guests were Professors Jim Matthews and Harold Hilsinger, both of whom had made more leisurely cross-country rides on bicycles. "You fellows who ride with packs on your backs and camp out, you're my real heroes," exclaimed Ed. "I didn't even work up a good sweat as an executive tourist."

Ed was driven to the Holiday Inn, where he was welcomed by innkeeper Maranes Nikitas himself, who had been eagerly awaiting his celebrated guest. The signboard in front carried the message, "Welcome to WPI's Ed Delano, '30."

Even before he'd had a chance to shower and change into the conventional clothes he'd shipped ahead, reporters were waiting to talk with him. *Boston Herald-American* writer Joe Heaney started his interview in Ed's hotel room. He was interrupted by a call from the *AARP Newsletter* editor. Joe finished his interview while Ed was realizing his month-long dream of "getting the works" at Barber's Crossing, the barber shop I use. Heaney's article concluded with the fact that

"Always run up stairs," he said. "It's good for you." This from a man who had pedaled nearly 100 miles that day!

proprietor George Bamikas wouldn't take any moncy for his work. "How many customers come 3100 miles for my services? This one's on me," said George.

For two days, Ed was besieged by writers who wanted his story. Even though he said much the same to each, he patiently answered all questions. Within hours, his story was carried by the wire services and on radio stations. He even had calls at his hotel room from radio stations in North Carolina and Los Angeles, from all-night talk shows who wanted him to share his experiences with their listeners.

By June 5th, when the Class of 1930's three-day reunion officially began, Ed was finally able to call his time his own again. Clean-shaven and wearing a business suit, he could pass through a crowd without being recognized as the bearded bicycle rider who had captured everyone's imagination two days earlier. And that's the way he liked it. At his reunion, Ed was happy to be just one of the class, reliving those great days on campus in the pre-depression era and bringing each other up to date on personal cvents of the past half century.

When the class held a dinner at the Plaza Club, located on the top floor of the Worcester County National Bank Building, Ed did slip back into character. Instead of taking the elevator, the way everyone else did, he climbed the stairs — up 24 floors!

When he made the final notes in his travel log, Ed noted that he had made the trip in 33½ days, almost three days better than his time ten years earlier; but still he missed his planned schedule by two and a half days. Ed is a purist who counts total elapsed time. But to everyone else who had become a part of his cross-country ride, Ed was right on schedule in terms of riding time. Weather had kept him indoors for two days, and the final day he delayed in Sturbridge in order to synchronize his campus arrival with the planned ceremonies.

Everyone wanted to know if he planned to ride back home. No, one way was plenty. Another frequently asked question was whether he would be riding his bike to his 60th reunion.

"Well," Ed commented by way of an answer, "I've ridden across the country three times now, and the novelty is beginning to wear off. I don't believe I'll make any promises about the 60th."

HE TOOK APART his bicycle, packing it away in a canvas bag for shipment home. When he left Worcester at the end of the Reunion, he stopped at St. Louis for two days of physical evaluation at the Washington University Medical School. A team of research people there have followed him for the past ten years, for Ed is one of their subjects in a long-term study on aging.

In a letter to Ed after the visit, Dr. James Hagberg wrote:

"We would like to express our thanks for your visit; it was inspiring for all of us and, on top of that, simply a lot of fun.

"Your body weight this time was 1.5 pounds lower (175.6 pounds) than during your 1978 visit. Your body fat was also very similar to the 12.5% measured on your first visit. Your ... oxygen consumption was ... substantially lower than measured earlier, and is probably indicative of the lower intensity riding experienced during the last month. It would be higher following your training for the national time trials, I'm sure.

"Your maximal voluntary ventilation (where you breathed as much as possible in 15 seconds) was 185 liters per minute, which is exceptional. Predicted normal for your age would be 80. Your vital capacity was 18 percent above predicted normal.

"Your heart rate, blood pressure, and electrocardiographic response to the treadmill test were perfect."

On Ed's first Saturday back in California, he participated in the district 25-mile time trial championship, covering the distance in one hour, nine minutes, and seventeen seconds. Of the five riders in the Grand Masters Class (55 and older), he placed second. All his competition was under 60. This finish qualified him to enter the national championships later in Bisbee, Arizona.

LOOKING BACK at Ed's ride, I can recall few events in recent years that have stimulated so much genuine interest in, and affection for, one man. I think there could be several reasons for this.

Each of us looks to the future with some concern, for we see too much evidence that old age is not really a golden period of happy and healthy retirement for many people. But even those who never met him can see in Ed Delano the hope that maybe, just maybe, they too have a chance to enjoy their later years with as much gusto.

The formula he lives by is essentially simple. Eating sensibly in moderation, doing what he enjoys, getting plenty of exercise, and enjoying his friends. To those who have the pleasure of knowing him, Ed has other endearing attributes. He's essentially a quiet man, who listens more than he talks. In spite of his notable accomplishments, he is humble. And although he believes passionately in his way of life, he chooses to teach it by example rather than by preaching. Ed Delano is a gracious and considerate gentleman, the kind of man we'd all like to have living next door ... or as a classmate. Just ask anyone from the Class of 1930.

WPI

REUNION-1980

AT RIGHT: *The Class of '55 enjoying themselves at Higgins House.*
ABOVE: *Winners of this year's alumni awards. From left, Herbert F. Taylor Award recipients (for service to the Alumni Association) Peter H. Horstmann, '55; Plummer Wiley, '35; and Leonard G. Humphrey, Jr., '35. Robert H. Goddard recipient for professional achievement, Raymond J. Forkey, '40; (not shown is Robert C. Stempel, '53, also a Goddard winner). Recipient of the WPI Award, for service to the college by a non-alumnus, is Robert W. Stoddard.*

1955's 25th

TWENTY-FIVE YEARS certainly flew by. They must have, because everyone looked the same and it seemed like nearly yesterday we had been together. 37 members of our class, along with 30 wives and guests, returned for the reunion, which was certainly festive and one that we will always remember. It was a great weekend!

It all started with the opening of our Hospitality Suite in the Fuller Residence complex, which became the focal point for all our activities. Frank and Madeline Horan, Pete and Barbara Horstmann, and Ray and Ginnie Sansoucy served as the hosts. The suite was a busy place and made an ideal place to meet. Several times we had about 70 people in the suite, and we never ran out of beer or good conversation.

Friday night the early arrivals spent several hours in the suite renewing fond memories of their four years at WPI and in Worcester. The group comprising Jerry and Charlotte Backlund, Earl and Pat Bloom, Bob Holden, Hank and Donna Manseau, Bob and Rose-Marie Neunherz, Hal and Shirley Sauer, Bob Schultz, Dick and Hella Sieron, Chuck and Barbara Walters, and the hosts went to dine at Maxine's, a new restaurant in downtown Worcester. They later returned to the Hospitality Suite and closed it at about 3:00 A.M.

The reunion luncheon gave Ray Sansoucy, our class gift chairman, the opportunity to present our $35,600 gift, which with matching funds approached $56,000 to the College. Our goal was $35,000. Our gift represented an excellent gift for a 25th-year class, both in terms of dollars and the percentage participation by members. It appears that our interest and enthusiasm for WPI has not changed. By a vote of the members of the class, the funds will be used for the new main entranceway in the now-being-renovated Atwater Kent electrical engineering and computer science laboratory. Also at the luncheon, our own Pete Horstmann and Bob Stempel received two of the six coveted awards: Pete the Herbert F. Taylor Award for distinguished service to WPI, and Bob the Robert H. Goddard Award for outstanding professional achievement. Unfortunately, Bob was, at the last minute, unable to join us for the reunion.

President and Mrs. Ed Cranch served as hosts in their home for a reception for the class. This gave us an opportunity to meet them and discuss WPI and to socialize. The banquet was held at the Higgins House, and the class picture was taken inside . . . and getting everyone assembled proved to be quite a task in itself. The banquet was superb, thanks to the Alumni Office, the caterer, and more particularly to Frank Horan, John Calhoun, Pete Horstmann, Ray Sansoucy, and Ralph Mongeon, who planned it. Frank also served as master of ceremonies and presented very smoothly a brief program that highlighted members of the class, the personalities of the class, things that happened while at Tech, and

the events leading up to the reunion. We even resurrected the Goat's Head for the occasion.

Frank announced that Tarek Shawaf presented a very generous gift to the class, which pushed us over our goal. Tarek had a number of kind words to say about WPI and about all his friends in this country.

Ralph Mongeon recognized Ray Sansouey and Frank Horan for their efforts as chairmen of the Reunion Gift and Reunion committees. Both Ray and Frank thanked their committees for their efforts in making both programs highly successful. The Reunion Gift Committee included Ray, Frank Horan, Paul Brown, Bob Olson, Art Rudman, and Ed Bouvier. The Reunion Committee included Frank, Ralph Mongeon, Pete Horstmann, John Calhoun, and Ray Sansouey.

Our special guests for the weekend and banquet were Carl and Arlene Koontz and Merl and Sandy Norcross. Merl reflected back on some members of our class, like Earl Bloom, Ed Bouvier, Don Grenier, Pete Horstmann, and Bob Schultz, the 'jocks' of the class. Bob Holden presented Merl with a 'gift,' borrowed from WPI, that he had been using for the past 25 years. Carl Koontz recalled his memories of the civil engineering graduates by highlighting Lou Axtman, Paul Brown, Jocko Conlon, Frank Horan, Bob Schultz, and Tarek Shawaf. Merl and Carl brought back many fond memories.

The yearbook was distributed at the banquet, along with appropriate comments by Ralph Mongeon, who assembled the information and oversaw its publication with the help of the Alumni Office. From the stats, it is obvious that members of our class have been very successful. They have also been successful in marriage, family, and commitment to Tech. They also average 3.2 children per family . . . a very productive class.

Those that traveled some distance to attend the reunion were Tarek Shawaf, who came from Riyadh, Saudi Arabia; Bob Schultz, from Corvallis, Oregon; Bob Holden, from San Diego; Howie Dworkin, from Detroit; and Don Zwiers, from Joliet, Illinois. Tarek received the gift for traveling the longest distance from abroad — a round-trip ticket on the self-propelled Gossamer Albatross. Bob Schultz traveled the farthest from within the country, and he received a can of dust from Mt. St. Helens.

President of the Class, Brian Kelly, was unable to make the reunion, and he suggested that we elect new class officers. They are Pete Horstmann, president; Frank Horan, vice president; Ray Sansouey, treasurer; and Ralph Mongeon, secretary.

In summary, when you add the familiar names of Roger Bardwell, Larry Dennis, Larry Henschel, Ray Lemieux, Jim Mathews, Walt Power, George Robbins, Gerrit Swart, Al Twitchell, John Welsh, Dick Butterworth, Dave Dayton, John Edfors, and Bob Sechrest and their wives and guests to the list, then combine Tech stories, exchanges about family and friends, discussions of professional, world, and business situations, and factor in good fellowship, it all equates to an outstanding and memorable reunion.

It was a great twenty-fifth, thanks to the Committee, the Alumni staff, and above all those who came. We will be seeing you all soon.

LEFT: *Peter Horstmann, '55.*
BELOW: *The Class of 1950 showed a remarkable turnout for their 30th reunion.*

1940's 40th

AFTER MONTHS of planning by the Class of 1940 Reunion Committee and three years by the Gift Committee, the Friday morning of Reunion finally arrived. 48 classmates plus their wives took part in our best reunion ever. Everything could be described with superlatives, starting at the moment we signed the registration cards in Morgan Hall with the pleasant, helpful hostesses assisting our obtaining 1940 caps and 1940 tote bags, answering all our questions, and pointing the way to our Ellsworth Residence rooms and our own 1940 Hospitality Suite nearby. Hospitality was ably captained by John and Laurel Peters, assisted by Ken and Judy Blaisdell.

That afternoon some enjoyed golf and tennis with classmates and wives at the Worcester Country Club, while others attended campus talks and tours, while at the same time catching up on old time-topics and friendships.

The evening program, entirely as guests of the Institute, started with a truly cordial reception at President and Mrs. Cranch's home at One Drury Lane. Those bacon-wrapped shrimp tidbits were very tasty and so nicely served along with other morsels and cocktails. We then crossed over Park Avenue to the Higgins House and a very brief, informal, and breathless tour of the mansion and grounds. It was followed by an elegant roast beef dinner. We are noting now that, next time back, we would like to spend more time studying the house and grounds. We also wish to point out that this was the first time we have enjoyed strawberry shortcake a la two-long-stemmed-roses for dessert! Place setting favors, thanks to Clark Goodchild, were 1940 nickels sealed in a plastic coated 1940 sign card. President Cranch was the key speaker, officially welcoming us for the weekend. Class president Ray Forkey highlighted the coming activities, and Steve Hebert, '66, alumni director, was the master of ceremonies.

We then adjourned to our Dorm, our Hospitality Center, and then to the Goats Head Pub in Sanford Riley for a very excellent evening of dancing and listening to old-time numbers by a Banjo Band. Many 1940 classmates participated here!

Saturday came with heavy rain. Breakfast in Morgan was abundant and delicious, and we have to point out the outstanding difference in food service the entire weekend — the difference being our memories of being served as students as compared with our now being guests, with food and service to match the occasion. We split up the the Art Museum tour, the WPI Today panel discussion, the nuclear power topic, and shopping in the bookstore. Oh! we wish the store had been open earlier, because there were too many conflicting demands on our time. The lecture by Professor Leslie Wilbur — *nuclear power: where are we headed?* — was outstanding, very broad in scope, and we hope it will be printed for all to study and discuss back home. Others were excited by the WPI Today panel.

Then came the alumni luncheon, indoors at Morgan due to the rain. Again a good meal, but the excitement of our class participation dimmed the excellence of the food. Our class president Ray Forkey received one of the prized Goddard awards for outstanding professional achievement. Good work, Ray! Our own Howie Freeman, as a member of the Board of Trustees, made presentations of other awards. And then our Merrill Skeist raised the roof when he pre-

sented the Institute with our class gift, more than double any prior 40th reunion class gift at $160,247.66 plus corporate matching gifts of $12,919.75, Dana qualifying payments of $37,669.28, plus two separate special additional gifts from class members totaling $362,500.00, for a grand total of $573,336.69. *Half a million dollars!* The $160,247.66 official class gift has been voted by the class to go for scholarship aid. Wow! That was some reunion luncheon!

That afternoon we relaxed a bit, some took the campus tour, others visited their fraternity, and still others enjoyed the class Hospitality Center. We all congregated at the Sheraton Lincoln Inn for class picture-taking, cocktails, dinner, band music, and dancing between courses — just a beautiful evening.

Ed Hafey, although running for King of USA, proved to be king of amusement and pun. Ray Forkey got in a business session to announce the tracking down of an old class bank account of $399.00. Fritz Johanson gave the 1940 class historical overview, reserved a minute of silence for our 17 deceased members, announced the results of the questionnaire now published in the new biographical yearbook. Ray then introduced our guests: Tom Denney, WPI vice president, who reported on the high qualifications of the entering freshmen; and Prof. Emeritus Al Schwieger and Prof. Don Zwiep, head of the mechanical engineering department and national president of A.S.M.E., both of whom spoke of their worldwide travels. Clark Goodchild announced that the two door prizes, very nice gift sharpening sets, were won by Jack Leach and Howie Freeman. Clark also took small group pictures at each table during the evening. Yearbooks were passed out to all, which resulted in many a light in the dorm being turned out late, while we digested those 73 reported careers. Music and dancing was enjoyed by all.

Sunday morning Break-Up-Brunch at Morgan was another super meal, along with the sincere good-byes and vows to "see you in five at our 45th." Special thanks go to Clark Goodchild for design and procurement of Class Caps and Bags; to Clark and Fritz Johanson for editing the Yearbook; to Merrill Skeist for carrying the ball on the Class Gift; to President Ray Forkey for calling the signals; and to all the members of the committees who put in many hours of work to make it all come to pass. Citations for long distance traveling for the occasion should go to D. Bates, R. Bates, M. Ross, L. Behrent, E. Hafey, and W. Brooks.

The complete list of those attending follows.

— Bob Dunklee, Secretary

Mr. & Mrs. Howard L. Anderson
Mr. & Mrs. Donald R. Bates
Mr. & Mrs. Ralston E. Bates
Mr. Lewis F. Behrent
Mr. & Mrs. Max Bialer
Mr. & Mrs. George S. Bingham
Mr. & Mrs. Kenneth R. Blaisdell
Dr. & Mrs. Roland S. Brand
Mr. & Mrs. William S. Brooks
Prof. & Mrs. Malcolm S. Burton
Dr. S. Carlton Dickerman
Mr. & Mrs. Robert E. Dunklee, Jr.
Mr. & Mrs. Raymond J. Forkey
Mr. & Mrs. Howard G. Freeman
Mr. Clyde L. Gerald
Mr. & Mrs. Richard Flencross
Mr. & Mrs. Leonard Goldsmith
Mr. & Mrs. W. Clark Goodchild, Jr.
Mr. Willard T. Gove
Mr. & Mrs. Frank G. Gustafson
Mr. & Mrs. Edward E. J. Hafey
Mr. & Mrs. Joseph M. Halloran, Jr.
Mr. & Mrs. Franklin D. Hayes
Mr. & Mrs. Robert W. Hewey
Mr. & Mrs. Fritz E. Johanson
Mr. & Mrs. Rolfe G. Johnson
Dr. & Mrs. Stanley W. Kimball
Mr. & Mrs. David A. Kuniholm
Mr. & Mrs. John A. Leach, Jr.
Mr. & Mrs. Russell A. Lovell, Jr.
Mr. & Mrs. Zareh Martin
Mr. & Mrs. Charles C. McDonald
Mr. & Mrs. Richard T. Messinger
Mr. & Mrs. Peter A. Muto
Mr. & Mrs. John H. Peters III
Mr. & Mrs. Donald Ramaker
Mr. & Mrs. Marcus A. Rhodes, Jr.
Mr. & Mrs. Milton E. Ross
Mr. & Mrs. M. Michael Sadick
Mr. & Mrs. S. Merrill Skeist
Mr. & Mrs. Everett P. Smith
Mr. & Mrs. Francis E. Stone
Mr. & Mrs. Lawrence R. Sullivan
Mr. & Mrs. Harry Terkanian
Mr. & Mrs. Frederic S. Wackerbarth
Mr. Randall Whitehead
Mr. & Mrs. Thomas S. Wingardner
Mr. & Mrs. David B. Zipser

Merrill Skeist presents President Cranch with the 40th anniversary gift of the Class of 1940 — more than half a million dollars in all.

1930's 50th

ACTUALLY, THE 50TH REUNION for the Class of 1930 started on Tuesday, June 3rd, with the arrival of Ed Delano on the completion of his 3,100 mile bicycle ride from Davis, California to WPI. As he crossed the finish line about noon at Boynton Hall, he was greeted by President Ed Cranch and a crowd of 300 faculty members, students, office workers and friends.

Fran Kennedy and I met him at the Yankee Drummer Inn on the Auburn-Worcester line, whence we followed him the last seven miles by car. This section of his ride was also filmed by the WPI television crew. He received the key to the city, a plaque from Jack McCabe, President of the Alumni Association, and I presented him a pair of roller skates from the Class of '30, suggesting he may want to try these for his 60th. Any way you look at it — it was a remarkable feat.

On Thursday afternoon, June 5th, we started to assemble at the Sheraton-Lincoln Inn, and at 5:45 P.M. most of us boarded a bus that took us to the President's house for a welcoming reception. At seven, we moved over to the Higgins House for a delicious roast beef dinner.

At the dinner, President Cranch spoke about the school, and then presented 50-year diplomas to those present, followed by the premiere of the 15-minute TV presentation of Ed Delano's ride of the last few miles, with the finish up the hill to Boynton Hall, and the various short speeches of welcome and congratulations.

Friday A.M., Steve Hebert, Alumni Secretary, escorted our class on a 1½ hour walking tour of the campus, pointing out the many new buildings and changes of the past twenty years. This was followed by a very nice buffet lunch in Morgan Hall.

During the afternoon, many of us attended seminars on the WPI Plan, and another on Estate Planning. The bus took those staying at the hotel back, so they could get ready for our 50th banquet which was held on the 24th floor — the Plaza Club — in the Worcester County National Bank building, opposite Worcester City Hall. The class picture was taken during our social hour, but with all the mirrors, windows, space, who knows if it will come out?

Following a very fancy dinner, Gardner Pierce, head of WPI's plant facilities, gave us a slide show of WPI old and new. Dan O'Grady, the Master of Ceremonies, read several letters from people in the class who could not attend for one reason or another. I announced that we had 100 living members out of a graduating class of 141; 76 members had contributed to our Fund; $15,000.00 had been raised during 1970-77; and, $39,677.55 was raised in the last three years. We also had matching gifts to the College of $3,061.25 and $9,684.00 in Dana matching funds. So our total effort was $67,422.80. (Actually, a late gift of $1,224.38 has arrived, so our total is now $68,647.18.)

The class voted that the College use our 50th Reunion Gift for the new student lounge area in the renovated Atwater Kent building. A suitable plaque will be put in the room informing all that this room was given by our class.

Gene Center, Class President for the last five years, thanked the various committees for work done

Steve Hebert, '66, presents Gene Center, '30, with the champagne and the Class of 1917 Attendance Cup. As usual, the 50th anniversary class outdid everyone else!

on arranging everything for the reunion. Pete Topelian gave a short talk on working (for money) after age 72.

Charlie Fay, Chairman of the Nominating Committee, presented the following slate for the next five years: President: Dan O'Grady; Vice President: Fran Kennedy; Secretary/Treasurer: Carl Backstrom. Nobody objected, so we were voted in. Once again, the bus was there to take the hotel people back, and our class really enjoyed this means of travel.

Saturday morning at 10:00 A.M., we were voted into the 50-Year Associates group, and we listened to a very interesting talk on energy by Prof. Leslie Wilbur.

Due to the rainy weather on Saturday, our reunion luncheon had to be moved inside to Morgan Hall, rather than the Higgins lawn. After lunch, the Goddard, Taylor, and WPI awards were presented to six people.

Due to the fact we had 42 percent of our living members there, we beat out the class of 1940, so we will have "Class of 1930" inscribed on the large silver attendance cup donated by the class of 1917. The best percentage of returning alumni from a class wins this honor, and also a bottle of champagne.

After the reunion luncheon, about 35 of our group of 75 went to Charlie Fay's home in Sterling, where we celebrated with the champagne. We finished with hamburgers, hot dogs, cookies, and coffee, which put everybody in a good frame of mind for their trip home, saying, "See you in five years." Thanks Charlie and Ingrid for opening up your house to us!

The following people were at the reunion:
Mr. & Mrs. Carl W. Backstrom, Mr. & Mrs. Roscoe H. Bowers, Mr. David K. Bragg, Mr. & Mrs. C. Eugene Center, Mr. & Mrs. Joseph H. Coghill, Mr. & Mrs. Charles H. Cole, Mr. & Mrs. William D. Davidson, Mr. & Mrs. Herbert W. Davis, Mr. Edward R. Delano, Mr. & Mrs. Charles R. Fay, Mr. & Mrs. Stanley H. Fillion, Mr. & Mrs. Leland H. Fisler, Mr. Thomas F. Flynn, Mr. & Mrs. Walter H. French, Mr. & Mrs. Albert M. Goodnow, Mr. & Mrs. Carmelo S. Greco, Mr. & Mrs. Allan L. Hall, Mr. Robert E. Hollick, Mr. & Mrs. Irving Joseph, Mr. & Mrs. Francis E. Kennedy, Mr. & Mrs. Raymond C. Lewis, Prof. & Mrs. William W. Locke, Mr. & Mrs. Percy F. Marsaw, Mr. & Mrs. George A. Marston, Mr. & Mrs. Edward C. Milde, Mr. & Mrs. William J. Newbold, Mr. Daniel F. O'Grady, Mr. & Mrs. Christos Orphanides, Mr. John R. Parker, Mr. Henry A. Pearson, Mr. & Mrs. Fred P. Peters, Mr. & Mrs. Paul E. Reynolds, Mr. & Mrs. Wilson H. Rice, Dr. & Mrs. Philip M. Seal, Mr. & Mrs. George W. Stratton, Dr. & Mrs. Joseph T. Tawter, Mr. & Mrs. Alvin E. Thrower, Mr. Paul J. Topelian, Mr. & Mrs. John H. Wells, Mr. & Mrs. Harold G. Williamson, Mr. Charles L. Wright, and Mr. & Mrs. Arthur Zavarella.
It was a great Reunion!

— Carl W. Backstrom

MIDDLE: *Members of the 50-year associates relaxing at the Worcester Country Club.*

1904

Loyalty to WPI often transcends a generation. Such was the case with the daughter of **Edward C. Perry** who shared his pride of this alma mater with his family as she grew up. Had Miriam been a boy, she might well have followed her father to WPI. Instead, she graduated from Simmons college and entered military service in World War II. She became the first Chief of the U.S. Air Force's Woman Medical Specialists Corps and later retired with the rank of colonel, by then the wife of Lt. Col. Moxie Goll, U.S. Army, now retired. Miraim Perry Goll died in January, 1979, but in her will she left a substantial bequest to WPI in memory of her father. Col. Goll recently visited the campus for the first time to see the college of which his wife often spoke fondly.

1911

An early thesis on wind power, "The Construction and Test of a Windmill Electric Lighting Plant," by the late **Ralph Goddard** has been acquired by the Rio Grande Historical Collections in the New Mexico State University (NMSU) archives. Goddard wrote the thesis while an undergraduate at WPI. He was dean of the NMSU engineering college from 1921 to 1929, until his accidental death in the campus radio station. The current NMSU engineering dean says that the thesis "was an excellent piece of work for that time."

1912

Ruth Taylor, widow of **Herbert Taylor**, was named the 1979 Red Cross Volunteer of the Year for Worcester County.

1913

William Stults writes: "I still drive my 14-year-old car, and will probably spend the summer in North Carolina."

1914

Secretary:
Ellwood N Hennessy
680 Mechanics Bank Tower
Worcester, MA
01608

The following information was sent to me by the vice president of our class, Earl Hughes. While it is true that his fraternity has been informed of this information, certainly the rest of our class have not, and I am submitting it exactly as it was sent to me.

Earl C. Hughes, '14, 98 Lighthouse Drive, Jupiter Inlet Colony, Florida 33458. Earl received a WPI honorary Doctor of Engineering Award on June 7, 1963, and the WPI Herbert F. Taylor Award on June 7, 1975. He is currently retired and is still married to Mary B. Hughes (54 years). Earl has one daughter, Mrs. Philip A. Peterson, who lives at 350 Salisbury St., Worcester, two sons living in California, and a total of nine grandchildren and two great grandchildren. Earl has enjoyed visits in Florida from President and Mrs. Cranch; Vice President and Mrs. Bolz, who live in Hughes House which he gave to WPI; and also from his very good friend, Tom Denney. Earl writes that he will be 88 in September and is beginning to feel it.

Earl has done a lot for our class and for Worcester Tech. As most people know, he gave his own home to the College. One other thing that is not generally known is that Earl lives in Florida next to the home of Perry Como. Whether Earl gets free beautiful music at home, such as Perry Como gives on television, I do not know.

I had another interesting letter from **Mike Dufault**, our president, and I also spent some more money on the telephone talking to him personally as before. Neither Mike or Chris, his wife, is presently very well, but they get around and occasionally go out to lunch at the Pillar House, which is my favorite eating place in New England.

I also hear from **Eddy Bartlett**, who still lives contentedly alone in Tryon, North Carolina. Last year he said he was very busy raking up an extra crop of leaves.

Tilly and **Al Crandon** and my wife, Dorothy, and I keep in touch every so often with each other by telephone. They are very busy living a social and farming life in their lovely home in Compton, Rhode Island.

1915

The **Frederick Churches** will be celebrating their fiftieth wedding anniversary in October.

1917

Married: Brigadier General **Hermon F. Safford** and Mrs. Annemarie Logsdon on March 15, 1980, in La Jolla, California.

1921 REUNION

JUNE 1981

Secretary:
Robert E. Chapman
26 High St
Oakdale, MA
01539

Representative
Robert E. Chapman

The **Edward Roses** celebrated their 58th wedding anniversary in February.

1925

Secretary
Daniel L. Hussey
81 Whitney Rd.
Short Hills, NJ
07078

John Fitzmaurice of Wellesley, Mass., a retired assistant traffic engineer from the Massachusetts Department of Public Works, is currently a self-employed traffic engineering consultant. . . . **Leonard Sanborn** writes that he is retired, healthy, and has completed three two-year terms in the New Hampshire legislature.

1926 REUNION

JUNE 1981

Secretary
Archie J. Horne
1 Hunter Circle
Shrewsbury, MA
01545

Archie Horne spoke on the topic, "Growing Up to Be A Man" at the annual district Men's Communion Breakfast held at the First Church in Sterling, Mass., on March 23rd. He is well known for his talks about land development, management, counseling and consulting. A member of the American Institute of Real Estate Appraisers, he also belongs to the Society of Real Estate Appraisers and the American Right of Way Association.

Armand Paquette writes, "We are celebrating our golden wedding anniversary on June 2, 1980."

1927

Secretary
William M. Rauha
4 Whittletree Rd
West Yarmouth, MA
02673

The **Nathan Southwicks** celebrated their 50th wedding anniversary on October 5, 1979.

1928

Secretaries
Gifford T. Cook
Rte. 3 Box 294
Keyes Perry Acres
Harpers Ferry, WV
25425

Theodore J. Englund
70 Eastwood Rd.
Shrewsbury, MA
01545

Since the **Paul Henleys** moved to Spain eight years ago, they've done a lot of traveling. They have journeyed to Belgium, Italy, France, Luxembourg, Germany, Portugal, Morocco, the Canary Islands, Madeira, the Balearic Islands, Monaco, and "many of the wonderful places in Spain." Memorable trips include a cruise from Alicante to Genoa to Tunis on a Dutch ship; a canal barge trip to Carcassonne; a visit to the caves of Altemira (before they were closed); and trips to the Alhambra, Sevilla, and Cordoba. Other points of interest have been the Costa del Sol ("similar to Miami Beach") and Barcelona. "Madrid you can have. The weather is like Cleveland, Ohio."

The town where the Henleys live is on the Costa Blanca, off the beaten tourist path. "An artist's paradise. We have a villa halfway up the mountains against the sea." Fishing and farming are the most prevalent vocations in the area.

"As for the American bases (here), they are more of an advantage to the U.S. than to Spain. Spain managed to stay out of World War I and World War II, and I believe it will stay out of the approaching World War III."

Ralph Lundberg says that he's so busy he wonders how he ever had time to work. He enjoys swimming, hiking, biking, golfing, bowling (two leagues), boccia, and tennis. He also travels and belongs to three men's clubs. Inga and he like to dance and belong to a club where they dine and dance. About every other year Inga visits her family in Sweden. Ralph has accompanied her on the family trips four times.

1929

Secretary
Holbrook L. Horton
120 W Saddle River Rd.
Saddle River, NJ
07458

Representative
Holbrook L Horton

Wayne Berry and his wife are tutoring slow learners in the West Side Elementary School near Spring Hill, Fla. Last fall, Wayne taught a course in fundamental economics for adult education at the local high school and used his booklet, "Progress and Poverty" as a textbook. He also teaches Sunday school at the Methodist Church, is a lay speaker, and coaches children's soccer. . . . **Arthur Knight** has returned from a week-long exploratory checkup at Mary Hitchcock Hospital in Hanover, N.H. He resides in Lower Waterford, Vt.

1930

Secretary
Carl W. Backstrom
113 Winifred Ave.
Worcester, MA
01602

Representative.
Carl W Backstrom

John Burt recently moved to Melbourne, Fla., to enjoy retirement. . . . **Joseph Coghill** was robbed at gunpoint at the Centerville Variety Store in Warwick, R.I., in June, but not before he tried to disarm the gunman with his bare hands. When first confronted by the robber, Joe grabbed the barrel of the gun, before it was finally pulled out of his grasp. The gunman demanded money from the cash register. Joe offered the man two tens, but he didn't leave until he got about $45. . . . **Sherman Dane** is still working in Boston at Welch and Forbes (Fiduciaries and Trustees) and commuting each day from his home in Marshfield, Mass. The Danes have three children: Bob, 27; Chris, 21; and Nancy, 19, a junior at Plymouth (N.H.) State College. "I expect to work full time until Nancy graduates," Sherm writes. "After that, I hope to slow down a bit and semi-retire."

Herb Davis says that he, like **Jim McLoughlin**, collects sand samples. Currently, he has a collection of about 100 samples from around the world. In the 1950's he helped design and test a beach cleaner, and during the testing he discovered that adjustments had to be made to allow for the large variations in sand from beach to beach. The project got him interested in sand collecting. Among his samples are those from the USA, Tahiti, Bora Bora, England, Wales, and Scotland.

Armando "Ed" **Greco** retired in June 1979. He left May 9th for a two-month trip to Western Europe. This was planned a year ago, so he was unable to attend the 50th. . . . **Jim McLoughlin** was sorry to miss the 50th, but he had just gotten back from the hospital recovering from an attack of angina. It was one of the few reunions he wasn't able to attend. . . . **Ted Mesh** enjoys his big vegetable garden and his camellias, roses, azaleas, magnolias, and gardenias in Greensboro, N.C. Louise and he live quietly and do no entertaining. Ted does some volunteer interviewing for the Greensboro Urban Ministry and is involved with church projects. His daughter and family live next door and his son and family live in Indianapolis. . . . Mr. and Mrs. **Fred Peters** of Springfield, N.J., were named the recipients of the Archbishop's Award during the annual fund-raising gala held to benefit Catholic Community Services in the Archdiocese of Newark, on April 27th. They are members of St. Rose of Lima Church in Short Hills, where Fred serves as a parish trustee. Peters, who is the former executive vice president of Reinhold Publishers in New York, is a past president of the Heart Institute at St. Michael's Hospital in Newark. He also serves on the advisory council of the Seton Hall University School of Business and on the editorial board of The Advocate, the archdiocesan newspaper. Mrs. Peters, a past officer of the ladies auxiliary at St. Rose of Lima, is a volunteer worker at St. Ann's Villa in Convent Station, a home for retired nuns, and at a nursing home in Totowa operated by the Little Sisters of the Poor. . . . **Phil Seal** has started a three-year term as a town assessor in Gouldsboro, Me. (Prospect Harbor, his home, is part of Gouldsboro.) He has been busy for several months getting all the information together for sending out the bills. Phil says that **Ken Gleason,** '33, has a summer home in his area. . . . **Vern Wade's** grandchildren graduated in June, so graduations kept him from the 50th reunion. He sends regards to all his classmates.

1932

Representative.
Howard P. Lekberg
RFD 115 Main St.
East Douglas, MA
01516

Paul Nelson was named a co-recipient of the 1979 Outstanding Conservation Farmer Award at the Caledonia Extension Advisory Board and Conservation District meeting held in Danville, Vt., in May. He and Raymond and Donna Nelson have operated Hillside Acres Farm in Barnet following conservation management practices in the use of their woodland. They produced maple syrup from 1300 maple taps. Paul served as town selectman for a number of years.

1934

Secretary
Dwight J. Dwinell
Box 265
Brownington, VT
05860

Representative
Edward R. Markert
1 Elf Hill
South Amherst, MA
01002

Harold Greeney has retired from Sandy Hill Corp., Hudson Falls, N.Y., where he was a sales engineer.

1935

Secretary
Raymond F. Starrett
Continental Country Club
Box 104
Wildwood, FL
32785

Representative
Plummer Wiley
2906 Silver Hill Ave.
Baltimore, MD
21207

Walter Blau, who retired over a year ago, writes, "Can't find the time to do all the things I planned for retirement. Enjoying every minute." He had been with Wallace Silversmiths in Wallingford, Conn., where he was plant engineering manager. . . . **B. Austin Coates** says that he has gone blind, but with extensive surgery and laser treatment his eyesight is coming back slowly. . . . **Phillip Dean** still enjoys skiing several times a week in the winter. In summer, he sails on Long Island Sound or works in his vegetable garden. . . . **Sam Hakam's** son just graduated from Long Beach University.

1937

Secretary
Richard J. Lyman
10 Hillcrest Rd.
Medfield, MA
02052

Representative
Gordon F. Crowther
20 Bates St.
Hartford, CT
06114

Correspondent
Samuel W. Mencow
189 Parker Ave.
Holden, MA
01520

In June, **Allen Benjamin** retired from teaching urban and environmental planning at WPI, although he still may be involved with an occasional course. He expects to do some consulting and writing. His wife, Eleanor, works at Wayland Public Library, but they will take a short trip during her vacation. Meanwhile, they are establishing a "farm" in Wayland. They grow blueberries, strawberries, raspberries, peaches, and pears. During his career, Benjamin was an urban planner in Costa Rica, Nicaragua, El Salvador, and various U.S. cities and towns, as well as a planning engineer for the Massachusetts State Planning Board. Civic-minded, one of his awards was the Distinguished Service Award of the New England Chapter of the American Institute of Planners.

Continuing as a professor in applied physics at Stanford University, **C. Chapin Cutler** says, "We are loving our new life in California, but it is not really relaxing." Recently, he bicycled 68 miles on the Coast Highway. He is active with the IEEE (Fellow), the church, and the Boy Scouts. Earlier, he had been with Bell Labs in New Jersey for 41 years, and retired as director of the Electronic and Computer Systems Research Laboratory. He was involved with "Echo," "Telstar," and the Picturephone computer applications, and was awarded over 70 patents. A member of the National Academy of Engineering, he also belongs to the National Academy of Sciences, AAAS, and Sigma Xi. WPI awarded him an honorary doctorate.

Wesley Holbrook retired in February as safety engineer in the technical support section of the Boston regional office of the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). Recently, he and Betty got together with Dot and **Bob Powers** on their way back from Florida. Last year, Holbrook taught a course in industrial safety one night a week at Northeastern, and expects to teach again this year. "The students are all from industry — and striving to obtain a degree the hard way by going to school nights," he explains. He hopes to do some consulting on fire protection and safety engineering. During his career, he had advised industrial firms and building contractors on fire protection and safety standards and requirements. . . . **A. Hallier Johnson** is still retired, and shooting, hunting, and boating. He lives in Chesapeake City, Md., on the Elk River.

David La Field serves as president of Shipyard Crafts in San Lorenzo, Calif. . . . The **Dick Lymans** are visiting China this summer. Dick says, "Have always wanted to know whether you drink or chew bird's nest soup!" In a year he expects to retire, but presently is vice president and director of personnel at New England Electric. . . . **Billings Mann** of George Mann & Co., Inc., Providence, R.I., has retired. He was president and director of the firm. . . . **Francis Marchand** is keeping busy with the Visiting Nurse Association and a social service agency in Torrington, Conn. He is retired, has five grandchildren, and enjoys sailing and tennis.

A. Hamilton Powell has returned from a 6-week volunteer stint in Kenya (near Nairobi) with the Africa Inland Mission. He planned and installed the electrical system in the 56′ x 90′ shop that the technical services branch of the mission is constructing. From the new building, technically trained personnel will go out to build houses, water projects, and electrical systems for the 450 missionaries across central Africa.

1938

Representative
Francis B. Swenson
599 Common St.
Walpole, MA
02081

Paul Murphy, a consultant for GE in San Jose, Calif., is now retired and living in Anacortes, Washington. . . . **Henry Ritz**, president of R&R Plumbing Supply Corp., Worcester, was recently elected president of the Association of the Plumbing and Heating Wholesalers of New England.He has served as president and treasurer of R&R Plumbing for 42 years. He holds a degree from Northeastern and took a management course at the Harvard School of Business Administration. Active in fraternal and civic groups, Ritz has also served as vice president and director of the New England Wholesalers Association.

1939

Secretary
Charles H. Amidon, Jr.
636 Salisbury St.
Holden, MA
01520

Representative
C. John Lindegren, Jr.
21 Prospect St.
Shrewsbury, MA
01545

Roger Iffland retired May 1st. from the Torrington Co., where he had been chief of mechanical engineering. . . . **Carl Lewin**, a WPI trustee, has been appointed manager of the Melbourne, Australia, office of Austin-Anderson Pty. Ltd., the Australian subsidiary of the Austin Company, international designers and builders. He joined the firm in 1940 as a field engineer in Austin's Eastern District. Later, he moved into sales, and in 1965, he was appointed sales manager for Austin's international companies. In 1975, he was elected a corporate officer of the company, maintaining his worldwide sales responsibilities as vice president for international sales and development.

He belongs to the ASCE, the Cleveland Engineering Society, the American Management Association, and Tau Beta Pi. The Lewins are moving to Australia from Detroit, where Lewin has been responsible for the operations of the Detroit office of the Austin Company.

1940

Secretary:
Robert E. Dunklee, Jr
Rocky Hill Rd
North Scituate, R.I.
02857

Representative:
Russell A. Lovell, Jr.
Jonathan Lane
Sandwich, MA
02563

Honeywell, Inc., Minneapolis, has named **Willard Gove** vice president of corporate real estate and field administration. In his new post, he is responsible for corporate real estate operations and the administrative functions in Honeywell's U.S. branch sales and service offices. Since 1978, Gove has been director of corporate real estate and field administration. In 1951, he joined Honeywell's Commercial Division as a sales representative in Boston, and two years later he became a marketing manager. He has also been manager of markets and products and director of corporate field administration. . . . **P. Warren Keating**, chairman of the board and treasurer of the P. J. Keating Co., Fitchburg, Mass., has been elected to the Burbank Hospital Board of Trustees. . . . **Zareh Martin**, an aircraft instruments engineer at GE in Wilmington, Mass., also teaches evening courses in management at Northeastern. He is a member of the Nahant School Committee.

1942

Representative:
Norman A. Wilson
17 Cranbrook Dr
Holden, MA
01520

McGraw-Hill is publishing Dr. **Frank Bodurtha's** book, *Industrial Explosion Prevention and Protection.* The book is concerned with the principles and practice of explosion control in the chemical and allied fields. Dr. Bodurtha, who has been with du Pont for 27 years, is now a principal consultant in the engineering department. . . . **Win Munyon** works for Whitman & Ransom in New York City. . . . In April, **Rodney Paige** was named vice president of corporate engineering at Pfizer, Inc., New York City. He had been director of construction and plant services. He joined the Groton plant in 1951, and transferred to corporate engineering in 1964 as assistant director of engineering. He is a licensed professional engineer in New York and Connecticut. The brother of **"Hilly" Paige**, '41, he is also a member of the Steering Committee for the Class of 1942's 40th reunion gift program. . . . Dr. **Ray Wynkoop**, formerly director of the corporate research department at Sun Oil Co., has retired.

1943

Representative
Robert S.Schedin
RFD #1
Brookfield, MA
01506

Richard Bonnet has retired from AVTEX Fibers after 32 years of service. . . . **Harry Merkel** holds the post of president of Mercury Company of Norwood, Inc., which is now located in Brockton, Mass. The firm is a subsidiary of Fischbach and Moore, Inc. . . . **Frank Szel** took early retirement from Dow Chemical, and is presently residing in Sun City West, Arizona.

1944

Secretary
John G. Underhill
6706 Barkworth Dr.
Dallas, TX
75248

Representative:
Harrison E. Holbrook, Jr
Holbrook Drop Forge, Inc.
40 Rockdale St.
Worcester, MA
01606

John Underhill is currently distribution coordinator for the western marketing region of Exxon Company, U.S.A., in Dallas, Texas.

1945

Representative:
Robert E. Scott
Indian Hill Rd.
Little Compton, RI
02837

James Breed writes from Richland, Washington: "So far, only a slight dusting from Mt. St. Helens, but many friends were caught further north in the thick of the dust." . . . **Burt Hinman** is currently vice president of Varco with responsibilities for international operations, purchasing, R&D, and the manufacturing of equipment for sorting and coating forms which Varco manufactures. The company manufactures forms for all purposes, including those for computer printing and machine reading. . . . **Ed Swanson** is "unloading" a big house for a smaller one with more land. He likes gardening and finds Washington an increasingly interesting place to be.

1946

REUNION
JUNE 1981

Secretaries
M. Daniel Lacedonia
106 Ridge Rd.
East Longmeadow, MA
01028

George H. Conley, Jr
213 Stevens Dr.
Pittsburgh, PA
15236

Judge **Ernest Hayeck** has been elected to membership in the American Antiquarian Society, which is headquartered in Worcester. He is a justice in the Commonwealth of Massachusetts Trial Court, District Court Department, Central Worcester Division. The AAS is the first historical society that has national collections and serves scholars and researchers worldwide. The library holds examples of over 2/3 of all American material printed before 1821 and its collection covers material up through 1876.

In February, the Rev. **John Knibb, Jr.**, was elected president of the Virginia Christian Ministers Conference (Disciples of Christ). He has been pastor of the Hampton (Va.) Christian Church since 1967. . . . Currently, **Jack Laffey** serves as vice president of marketing for worldwide major accounts at Clark Equipment Corporate Headquarters in Benton Harbor, Mich. He travels a great deal and is responsible for the full Clark product line to major accounts. The product line covers construction equipment including loaders, scrapers, cranes, graders, and skimmers.

Thomas Lempges has been named to the newly-created post of vice president of nuclear generation by the Niagara Mohawk Power Corp., Syracuse, N.Y. Previously, he was head of nuclear generation. In 1949, he joined the firm at the Dunkirk steam station. A total of 22 years of his experience has been in nuclear generation. He was concerned with the Enrico Fermi fast breeder reactor in Michigan, a jointly sponsored reactor project in Vallecitos, Calif., the design and supervision of Nine-Mile Point and the functions of the FitzPatrick plant. He is a licensed professional engineer.

Donald Nichols has retired. Formerly, he was associate technical director of engineering and technical supply at Naval Underwater Systems Center, New London, Conn.

1947

Representative:
Allan Glazer
20 Monadnock Dr.
Shrewsbury, MA
01545

Norman Feldman holds the post of vice president of operations at The Three Phoenix Co., Phoenix, Arizona.

1948

Secretary:
Paul E. Evans
69 Clairmont St
Longmeadow, MA
01106

Representative:
James G. McKernan
516 Brook Forest Ln
Charlotte, NC
28211

Thomas Hess is director of engineering for fuel injection equipment at Stanadyne/Hartford Division of Roosa Master. . . . **Richard Horne** continues with Cincinnati Milacron Co., and is presently regional administrator in St. Louis, Mo. . . . **Gordon Keller** writes that he is retired from AVCO

and is "messing around with solar do-it-yourself to keep in touch with the engineering philosophy." Recently he participated in a Total Environmental Action Seminar in Harrisville, N.H. . . . **Arne Kellstrom** is leaving New Jersey this summer for Houston, Texas, where Ingersoll Rand is setting up new headquarters for the Gas Compression Group. He has been with the company for 32 years, and is now vice president of product management, a post related to all oil field and process industry products.

Daniel Sheingold edited *Transducer Interfacing Handbook* (a Guide to Analog Signal Conditioning), which was recently published by Analog Devices, Inc., of Norwood, Mass. The manager of technical marketing at Analog Devices, Inc., Sheingold is also editor of "Analog Dialogue." In the course of a long career in analog computing and data-acquisition, his major publications include the Analog Devices' *Analog-Digital Conversion Handbook,* and *Nonlinear Circuits Handbook*, and earlier, the Philbrick *Applications Manual for Operational Amplifiers,* and *The Lightning Empiricist*.

1949

Secretary:
Howard J. Green
1 Kenilworth Rd
Worcester, MA
01602

Representative:
Sidney Madwed
215 Crest Terrace
Fairfield, CT
06432

Dean Amidon, commissioner of the Massachusetts Department of Public Works, was named one of the top ten Public Works Leaders-Of-The-Year during the observance of National Public Works Week in May. He directs 4,500 DPW employees and is responsible for an operating budget of $100 million. He originated a useful life replacement schedule for DPW equipment to increase efficiency and reduce maintenance costs and has developed a caravan/masspool program to assist private firms in the development of commuter van and car pools for their employees. Under Amidon's direction, the DPW had surpassed its goal of advertising $200 million of various types of construction projects for the first time in history, and has streamlined operations to operate more efficiently with available resources.

Phil Buffinton continues as chief operating officer for State Farm Fire & Casualty Co. and State Farm General Insurance Co., wholly-owned subsidiaries of State Farm Mutual. He serves on the board of directors of both subsidiaries. Since his companies are among the largest writers of homeowners insurance, he is very interested in construction standards, windstorm resistance, and arson detection. He belongs to the American Academy of Actuaries and the Casualty Actuarial Society. . . . **Richard Hawie** has retired. . . . **Bill Julian** has acquired a Vermont real estate license and plans to sell some condominiums and lots at Burke Mt. . . . **Daniel McQuillan** serves as a broker for South Coast Realty, Mattapoisett, Mass. He is also a general management consultant doing business under the name of McQuillan Associates.

Edward Randall was elected a director of Morgan Construction Co., Worcester, and was simultaneously promoted to vice president of rolling mill engineering administration and purchasing. Since 1954, he has been with the company, which he has served as vice president, project administration and purchasing. He belongs to the ASME and is a director of the Purchasing Management Association of Worcester.

1950

Secretary:
Lester J. Reynolds, Jr.
15 Cherry Lane
Basking Ridge,NJ
07920

Representative:
Henry S. Coe, Jr
3 Harwick Rd
Wakefield, MA
01880

Dan Harrington, Jr., president of Sunnyside Motor Co., has been reelected a library trustee in the town of Holden, Mass. . . . **Kenneth Muccino**, an employee of Peter Paul Cadbury in Naugatuck (Conn.) since 1957, is currently director of engineering. He has two sons: Kenneth '73, who works for Northeast Utilities in Berlin, Conn., and Keith, a second-year medical resident at St. Francis Hospital in Hartford. . . . **James O'Connor** holds the post of program manager at Hazeltine Corp., Greenlawn, N.Y. Presently, he is working on a NATO E-3A program at Siemens for Hazeltine. . . . **Charles Seaver** is an energy conservation engineer at Ball State University in Muncie, Indiana.

During the past ten years, some 6,000 people have settled in Guilford, Conn., most of them in subdivisions engineered by **Russell Waldo** and Associates. (Waldo's son, Jonathan, '78, is with the firm.) The Waldo company has also handled the engineering end of nearly 80% of the town's residential and commercial development, and about ⅓ of Madison's (Conn.), as well as numerous jobs along the shoreline. A self-described conservationist, Waldo likes to build multi-family housing projects to save energy and keep land open. He also likes to provide affordable modern rental housing, and points out that 40% of the residents of the apartments in his Strawberry Hill complex are retired.

Philip Wild has been elected a director by the board of directors at Stone & Webster Engineering Corporation. He was also appointed director of engineering. In his new post, Wild is responsible for engineering in the firm's Boston headquarters, as well as engineering and design throughout the international corporation. A vice president since 1972, during his 24 years with the company, he has engineered and designed major power projects, headed the marketing department, and most recently has held the post of senior engineering manager. Wild, a professional engineer, belongs to the U.S. Committee of the International Commission on Large Dams and the International Society of Soil Mechanics and Foundation Engineering. He is also a member of the ASCE and holds a master's degree from Princeton. He is a town meeting member in Walpole, Mass.

1951 REUNION

JUNE 1981

Secretary:
Stanley L. Miller
11 Ashwood Rd.
Paxton, MA
01612

Representative:
Duncan W. Munro
59 Brigham St
Northboro, MA
01532

Capt. **Ralph Auerbach, Jr.,** Civil Engineer Corps, U.S. Army, retired on July 1st following 26 years of Navy service. His final assignment was as executive officer of the Western Division, Naval Facilities Command, San Bruno, Calif. This fall he will enter the DBA program at Florida State. . . . **Leo Lemere** has transferred to The Badger Co., Inc., as vice president of project controls. . . . **Jack Reid**'s company, Diversified Metals Products, which he headed as president, recently merged with Koch Engineering Company, Inc., Fairfield, N.J. Currently, he holds the post of general manager of the Divmet Division at Koch.

1952

Secretary:
Edward G. Samolis
580 Roberts Ave.
Syracuse, NY
13207

Representative
John M. Tracy
15 School St.
Northboro, MA
01532

Lee Tuomenoksa, executive director of the Data Communications Division of Bell Labs, has been elected a fellow of IEEE. He was cited for his "contributions to the development of telephone electronic switching systems."

1953

Secretary:
Dr. David S. Jenney
109 Wilbrook Rd
Stratford, CT
06497

Representative:
George T. Abdow
35 Forest Glen
West Springfield, MA
01089

▶*Married:* **Daniel W. Furman** and Marcia Brandwein on May 4, 1980, in New York. Mrs. Furman graduated from Pratt Institute. She is director of styling for M. Lowenstein and Sons in New York City. The groom, who has an industrial engineering degree from Columbia, is in business in the U.S. Virgin Islands.

Dave Beach is still with Kodak, now working in the medical products field as program manager for automatic blood analyzers. Two of the four Beach children are through college (St. Lawrence and Russell Sage), and the third is at Michigan. The youngest is in high school. Dave stays active with a "strong bug" for ski racing. He has entered the New York State Senior Race Circuit and won his age group in '78 and was second in '79. This year he raced on the women's Olympic downhill course at Whiteface Mt. in the Senior Nationals. Among Dave's other interests are the Ski Patrol and tennis. Last year, he reached the semi-finals in the Rochester Senior (tennis) Districts.

Tom Bellew celebrated his 27th year with IBM in June. Currently, he is a staff engineer in packaging and distribution of large scale computer systems. Daughter Diane is a teacher; Lynne, a speech therapist; and Jody, a college graduate. David continues at Clarkson. Tom has served as an officer and/or chief of the Hyde Park (NY) Volunteer Fire Department for over 20 years. He and his family enjoy downhill skiing. Recently Tom completed his 20th year as secretary-treasurer of his 10-pin bowling club.

Mike Cariglia is presently an engineering analyst with New England Power in Westboro, Mass. He says that a WPI/NEES Corporate Contacts Program has been set up for the purpose of keeping WPI alumni-employees informed about activities taking place at WPI.

Ed Diamond writes from Cutchogue, N.Y., that he's working on electronic warfare systems for Grumman on almost a 60-hour week. He reports, "It's almost fun, something like working out puzzles all the time. We are not far from the Star Wars concepts." The Diamonds have four children aged one to twelve. Ed and the oldest enjoy sailing on Peconic Bay. Ed's "checkered career" includes a tour as a project engineer on Ranger at NASA, design of a solar system for an energy house for Grumman, and a spare time stint as editor of "Mensa." He says that he considered working in energy as a career, but came to his senses in time.

Ed should compare notes with **Dave Elovitz,** whose letterhead carries the logo, Energy Economics. (Dave's new business venture was outlined in the winter *Journal.*) He writes that his consulting business is busier than he ever intended. With the three Elovitz offspring through college, his wife, Franny, is more free to travel with him when his consulting takes him to interesting places like Guam and Truk. Their son, Ken, a materials science graduate of Lehigh, is a process engineer at Texas Instruments in Attleboro. Daughter Sara went to Syracuse and Curry and teaches multiply handicapped children at Little Peoples School in Newton. She also does some typing for her dad. Gary just graduated from Dartmouth and is in graduate school in Israel. Although the senior Elovitzes are involved with Dave's business, they still sing in the Temple choir, and Franny helped with the Sisterhood cookbook fund-raising project. Dave has finished a chapter for a McGraw-Hill handbook, and is writing a magazine article on ventilation for *Plant Engineering.* He teaches seminars, sails, and is involved with the American Field Service. His AEPi roommate, **Arthur Shepard,** lives right around the corner from him.

Your secretary, **Dave Jenney,** proudly reports he finished his fourth Boston Marathon in April with a closing "sprint" to break three hours by ten seconds — good for 1536th place. . . . **H. G. Stanton** is the controller for DiEugenio Tool Center, Inc., Phoenix, Ariz. After retiring from the USAF in 1972 as a lieutenant colonel, he was an industrial engineer with Black and Decker Corp. (McCulloch Corp., Lake Havasu, Ariz.). Recently, Stan was an honor student at Arizona State University and graduated with a BS in accounting.

1954

Secretary
Roger R. Osell
18 Eliot Rd.
Lexington, MA
02173

Representative
Edwin Shivell
64 Woodland Dr
Portsmouth, RI
02871

Neil Gleberman has been appointed manager of operations for the chemical division of Koppers Co. He supervises and directs operations at plants located in Bridgeville, Oil City, and Petrolia, Pa., and Chicago, Ill. . . . **Douglas MacLaren** was recently promoted to plant engineer at the Torrington Company (Heavy Bearings) in South Bend, Ind. He joined the firm in 1954 and went to South Bend in 1974 as assistant sales manager. Later, he was named sales manager for several domestic sales offices. . . . **Milton Meckler's** firm, the Meckler Energy Group, has begun a complete survey of the air conditioning systems at the Naval Air Station at Lemoore, Calif. Twenty-nine major buildings are involved.

The sales engineering division of Bethlehem Steel Corporation's sales department has appointed **Roger Wildt** to the newly created post of project manager. Formerly a structural consultant, Wildt will have responsibilities in the area of new products, particularly the coordination of interdepartmental market development teams. He will continue serving Bethlehem and the steel industry in the fields of building codes and structural fire protection. Prior to starting at Bethlehem Steel in 1960, he was an associate professor of civil engineering at WPI. From 1963 to 1967 he served the steel company as an assistant research engineer. In 1967, he was transferred to the engineering department. Two years later he was named a structural consultant in the sales engineering division. Wildt, who holds a diploma in structural engineering from the Imperial College, University of London, England, belongs to the ASCE, American Concrete Institute, National Fire Protection Association, and the American Society for Testing and Materials. He is a registered professional engineer in Massachusetts.

1955

Secretary
Kenneth L. Wakeen
344 Waterville Rd.
Avon, CT
06001

Representative
Edouard S. P. Bouvier
123 Beechwoods Dr
Madison, CT
06443

Raynald LeMieux holds the post of manager of licensing sales at Atlantic Richfield Company, Philadelphia. . . . At the present time, **Richard Lucey** is president of Intrex, Reading, Mass. . . . **Donald McNamara** is the president at Tara Chemical Co., Pittsburgh, Pa.

1956 REUNION
JUNE 1981

Secretary
Rev. Paul D. Schoonmaker
325 North Lewis Rd.
Royersford, PA
19568

Representative
John M. McHugh
431 Beacon Hill Dr
Cheshire, CT
06410

Donald Behringer was elected as a one-year member of the Ashburnham (Mass.) Municipal Light Board last spring. He is a senior engineer at GE in Fitchburg, Mass. . . . **Robert Farrar** has been elected to the board of directors of the Keene (N.H.) Co-operative Bank. He is president of Frederick A. Farrar, Inc., and Farrar Engineering, Inc., and vice president of P.B. Alford Associates, a snowmaking consulting engineering firm. Before returning to Keene to join his father, **Frederick A. Farrar,** '31, in the electrical repair, sales, and service business, Farrar worked as a design engineer for Westinghouse. He and his wife, Jeananne, have four children. . . . **Norman Fischer** holds the post of associate director at Vanderbilt University in Nashville, Tenn.

Prof. **Raymond Hagglund** of the WPI mechanical engineering department was the featured speaker at an ASME meeting held at the Old Mill in Westminster, Mass., in May. His topic was "Products Liability in Engineering." . . . Still with Ebasco Overseas Corp., **Charles Healy** is now residing in San Juan, Puerto Rico. . . . **Anthony Scancella** serves as plant manager for du Pont in South San Francisco, Calif.

1957

Secretary:
Dr Robert A. Yates
11 Oak Ridge Dr
Bethany, CT
06525

Representative
Alex C. Papianou
15 Birch Tree Rd
Foxboro, MA
02035

John Braley is national account manager at Information Handling Services in Dallas, Texas. . . . **Audrey Carlan,** a professor at Southwest College in Los Angeles, currently serves as chairman of the mathematics department. . . . **Thomas Kohanski** has been doing design work on submarines for over 20 years. He was with Electric Boat from 1959 to 1968 and with Mare Island Naval Shipyard since. Tom and Ellie's children are: Karen, 21, a student at the University of California-Davis; Tim, 19, at the University of California-Berkeley; and Mark, 17, a high school senior.

Wilson Sellar holds the position of president at R&M Stampings, Inc., Westboro, Mass. . . . **Carl Uretsky** is employed as regional manager at Unitrode Corp., Dallas, Texas.

1958

Secretary
Harry R. Rydstrom
132 Sugartown Rd.
Devon, PA
19333

Last October, **Jasper Freese** sold his business to Otto & Culver of Storm Lake, Iowa. Currently, Freese works as manager of the Greeley, Colo., office of the architectural-engineering firm. . . . **Stewart Gentsch** continues with Rexnord, and is now president of the Roller Chain Division in Springfield, Mass. . . . **David Helman** holds the post of vice president of administration at Institutes of Medical Sciences, San Francisco. He has an MS in management from RPI.

William Hopf, vice president and general manager of Walworth Co., has received the "Man-of-the-Year Award" from the Valve Manufacturers' Association. His award read in part: "William H. Hopf — for years of meritorious service to the valve industry." . . . Presently, **Sheldon Kesslen** serves as plant manager at Alton Shoe Co., a division of Shaer Shoe, Inc. . . . **Douglas Todd** was co-author of "A Mechanism for the Development and Use of Synthetic Fuels" which appeared in the April 24th issue of *Public Utilities Fortnightly.* He is manager of steam and gas for power generation business development, gas turbine marketing department, at GE in Schenectady, N.Y. He joined GE in 1966 and has worked in heat transfer products and the medium steam turbine and gas turbine division. Earlier, he was with Alco Products, Inc., in nuclear, petrochemical and utility services. . . . **Richard Wiinikainen** is presently a sales representative at Metropolitan Life in West Palm Beach, Fla. He is also a realtor-associate at New Era Realty II Corp.

1959

Secretary.
Dr Frederick H Lutze, Jr.
110 Camelot Court NW
Blacksburg, VA
24060

Representative:
Dr Joseph D. Bronzino
Trinity College
Summit St.
Hartford, CT
06106

Burnham Baker holds the position of president at PenCept, Inc., in Waltham, Mass. . . . **Frederick Costello** was promoted to vice president of sales for the ethylene oxide derivatives division of Union Carbide Corp. and is now headquartered in Moorestown, N.J. He began work as a sales trainee in New York for the company following graduation. He was advanced through the chemical field sales organization and was named district sales manager in St. Louis, Mo. In 1971, he was named market sales manager in New York. Later, he became the EOD division director of sales in Moorestown. The Costellos and their three daughters and three sons live in Moorestown.

Wayne Gass continues as director of physical facilities and assistant business manager at Mount Holyoke College. He is responsible for 800 acres and 100 buildings, including 50 major structures and 40 faculty houses. He directs a corps of 250 people whose talents include pruning, carpentry, and cooking. With the college since the early 1960's, Wayne has seen the campus expand considerably with a number of new buildings being built and older ones being renovated. In the 1970's, the school caught its breath with reduced building activity, and in the 1980's is looking ahead to energy conservation. Says Gass, "It's the route we have to walk." He holds an MS from MIT and is active with the Holyoke Rotary Club's Foreign Student Program.

Michael Hertzberg, president of Michael A. Hertzberg Consulting Engineers, Inc., Waitsfield, VT, was recently elected vice president of the American Consulting Engineers Council (ACEC) for 1980-82. The Council represents 3,600 independent engineering firms. Previously, Hertzberg served as a member of the ACEC Engineering Education and Scholarships Committee, the Business Practices Committee, the Interprofessional Committee, the AIA-ACEC Liaison Committee, and the Planning Cabinet.

His own firm, established in 1967, specializes in mechanical, electrical, alternative energy and energy conservation engineering services. Formerly, he had been president and national director of ACEC-Vermont and had held posts in three companies. In 1978, Hertzberg received an ACEC-Vermont engineering excellence honorable mention for the mechanical engineering design of the Vermont State Hospital in Waterbury. He has studied at NYU, CCNY, and the University of Illinois. A member of the National (and Vermont) Society of Professional Engineers, he also belongs to the American Society of Heating, Refrigerating, and Air Conditioning Engineers.

Norman Monks serves as division operations manager at Rexnord. . . . Still with the Army Corps of Engineers, **Leo Price** continues his involvement with the construction of two airbases in Israel. He expects to be back in the U.S. next year. . . . **Phil Puddington** has joined P.T. Brake Lining Co., Inc., Lawrence, Mass. He is a member of the WPI Fund Board.

1960

Secretary:
Paul W Bayliss
170 Wyngate Dr
Barrington, IL
60010

Representative
John W Biddle
78 Highland St.
Holden, MA
01520

Still with IBM, **William Firla** is now senior market support center representative in the Data Processing Division, Waltham, Mass. . . . **Paul Honer** is employed as marketing and sales manager at Kennedy Engineering Co., Tulsa, Okla. He is an ordained deacon in the Tulsa Diocese of the Catholic Church, assigned to St. Ann's in Broken Arrow. He and his wife, Ruthann, have two children. . . . **Irwin Jacobs** is vice president of the commercial OEM group at Digital Equipment Corp., Maynard, Mass. . . . **Robert Kandall** holds the post of commercial vice president at Pullman-Kellogg, Hackensack, N.J.

Continuing with Polaroid, **Richard Loring** is presently a senior manager of technical manufacturing in the film division, in Waltham, Mass. His wife, Pat, is active in the Massachusetts Association of Conservation Commission and serves as chairwoman of the Town of Westford Conservation Commission. The Lorings have two children in high school.

Kenneth Matson was named vice president of the Public Service Electric & Gas Research Corporation, where he began as a cadet engineer in 1960 in New Jersey. He has an MBA from Rider College and attended the program for management development at Harvard Graduate School of Business. He is married and has four children. . . . Formerly a field sales manager for the Rubber Chemicals Division of Monsanto Co., **Harry Ray** is now plant manager of the Detergents and Phosphates Division, Monsanto, in Trenton, Mich. Son Tim is a student at Cornell; Kevin a high school student; and Susan is in elementary school.

David Willard, a group leader at the Mitre Corportion, Bedford, Mass., has been awarded a patent as co-inventor of a digital bus communications system. The device is a time-division multiple-access communications system that includes a number of terminals coupled to a common signal path or "bus." It operates more than seven times faster than an earlier version developed at the system engineering firm, for which Willard had previously received a patent. With Mitre since 1960, he had also been associated with Crompton & Knowles, and had served as an independent consultant. He has a BS from the University of Vermont and a master's from WPI.

1961 REUNION

JUNE 1981

Secretary:
John J Gabarro
8 Monadnock Rd
Arlington, MA
02174

Henry "Hank" **Allessio** is presently a vice president and member of the board of directors of Hayes/Hill Incorporated, New York. He had been with William E. Hill & Company for over ten years before it merged with Robert H. Hayes and Associates in 1979. He holds an MS in management from RPI. Prior to joining Hill, he was with New York Telephone and Geon International. Hayes/Hill is an international management consulting firm.

Roger Borden, associate professor of mechanical engineering at WPI, is taking a one-year leave of absence from his teaching duties to join other top engineers from around the world to "shape the vehicle of the 1980's." In June, he left for Boston to work with the U.S. Department of Transportation's Transportation Systems Center. Says Roger, "The car of the 80's will be practical, not a thing of beauty. It is certainly going to have to last a lot longer than our present cars, since it will undoubtedly cost a good deal more." He expects that the biggest change in automobiles will be a move away from metals as the primary material for car bodies. "Metals corrode, are heavy, and cut down on mileage." He believes there will be a switch in the industry from metals to composite materials or plastics, and that the use of the diesel and gas turbine engines will be more widespread. Along with the advances in auto construction, Borden envisions the growth of mass transit as one of the better hopes in solving our transportation problems.

Bradford Cushing has been promoted to manager of engineering design at Weston Designers-Consultants. He is responsible for all design activities in the engineering and construction management division. With Weston since 1975, he was a project engineer and project manager, and has had 13 years of experience in the industrial and municipal markets. During his career, he has also been with Enviroengineering, Inc., and GE's Knolls Atomic Power Laboratory. Weston is a 500-person international environmental energy design-consulting organization headquartered in West Chester, Pa. . . . **Richard Davis,** who holds an MBA from Pepperdine University, Los Angeles, presently serves as manager of strategic planning for the military products group at Intel Corp. in Santa Clara, Calif.

James Dunn is president of Dunn Engineering Co., Inc., Foxboro, Mass. . . . **Daniel Geller** works as a senior environmental consultant with the Maryland Environmental Service in Annapolis. He and his wife, Susan, and two children live in Alexandria, Va. . . . **Allen Johnson** holds the post of district sales manager at Lambda Semiconductor in Tampa, Fla. . . . **G. Leonard Johnson** was recently promoted to director of generation engineering at Northeast Utilities (NU). Previously, he was director of reliability engineering and quality assurance. In 1961, Johnson joined the Hartford Electric Light Company. In 1966, he transferred to NU. From 1968 to 1975, he was project engineer and acting project manager for Millstone II. Johnson belongs to NU's Nuclear Speakers' Bureau, the ASME, and the American Nuclear Society. He is a registered professional engineer in Connecticut. He, his wife, Lauretta, and son and daughter live in Glastonbury.

Stephen Klein is a senior staff scientist at Science Applications, Inc., La Jolla, Calif. . . . Still with Malcolm Pirnie, Inc., **Peter Kuniholm** is now resident project manager for the environmental consulting firm in Cairo, Egypt. He is concerned with wastewater systems rehabilitation and expansion in the Suez Canal region, including the cities of Port Said, Ismailia, and Suez. . . . **Merrill Rutman** continues as an electronics engineer for U.S. Army CERCOM, Ft. Monmouth, NJ. . . . **Conrad Matuzek** has been honored by New England Telephone Co. for his sales achievements. He is recognized by the company for doing an outstanding job developing his segment of the business market for 1979. Matuzek received a personalized plaque from the company president, and was named a member of the New England Telephone President's Club. The club is comprised of top sales performers in each company division. Matuzek is marketing manager in Waltham. His organization is responsible for electronic and electrical industries in the five-state area served by the company. . . . Currently, **Charles Mello** serves as plant engineer at Coppus Engineering in Worcester.

1962

Secretary.
Harry T Rapelje
1313 Parma Hilton Rd
Hilton, NY
14468

Representative
Richard J DiBuono
44 Lambert Circle
Marlboro, MA
01752

Robert Cassanelli has been promoted to laboratory manager of the General Foods plant in Dover, Delaware. Since 1974, he has been managing the starch and instant pudding programs at Dover. He started with the firm in 1964 in the Tarrytown (N.Y.) technical center. He holds an advanced degree in food science from the University of Massachusetts. . . . Dr. **Keyren Cotter** is assistant director at the Center for Fracture Mechanics at Washington University in St. Louis, Mo. . . . **Paul Cultrera** serves as director of the Cooperative Education and Placement Department at Manatee Junior College, Bradenton, Fla. . . **Arthur Dobreski** is employed as a facilities operations manager at the Signetics Division of U.S. Phillips in Sunnyvale, Calif. The Dobreskis have three children. . . . **John Rupprecht** is a president at Sullair Corp., Michigan City, Indiana.

1963

Secretary.
Robert E Maynard, Jr
8 Institute Rd.
North Grafton, MA
01536

Representative.
Joseph J Mielinski, Jr
34 Pioneer Rd.
Holden, MA
01520

Albert Brodeur is employed as manager of engineering computing at Pratt & Whitney, West Palm Beach, Fla. . . . Dr. **Robert Desmond,** P.E., former head of the mechanical engineering department at Rochester (N.Y.) Institute of Technology (RIT), has been named director of RIT's new Institute for Applied Energy Studies. He will be responsible for the institute's energy research and development programs, including a $483,089 federal grant to reduce energy consumption on the Rochester campus. The new institute will conduct research and development programs in applied energy for the private industrial sector and study alternative sources of energy. Energy House, a solar powered energy efficient home built through cooperative efforts, will come under the authority of the institute. Dr. Desmond was appointed to the directorship because of his extensive experience in energy research. He has taught at RIT since 1970, and he served as a consultant to the Swedish State Power Board while on sabbatical leave in 1976 and 1977. He belongs to Pi Tau Sigma, Sigma Xi, ASME, Rochester Engineering Society, and ASEE, among other societies. He has a PhD from the University of Minnesota. The Desmonds live in Lima, N.Y.

In May, Dr. **Allen Hoffman,** associate professor of mechanical engineering at WPI, was selected as the WPI Outstanding Teacher of 1980. He received a $1,000 award and a citation from the college trustees. He holds a PhD from the University of Colorado. In 1964, he joined the WPI faculty as a teaching assistant. His professional interests are in vibrations, fluid mechanics, biomechanics, and the environment, including pollution abatement of Lake Quinsigamond. Since his student days as a co-captain of track and cross country, he has maintained his interest in running and has entered many races, including the Boston Marathon.

Presently, **Russell Hokanson** serves as area supervisor at du Pont's Savannah River plant in the reactor department. "I am still trying to qualify for the Boston Marathon. It will be a little easier now since I'll be 40 at the time of the next race." . . . Dr. **Richard Iacobucci**'s firm, Roctronics Entertainment Lighting, Inc., recently developed a new light dimming package that can control up to 9000 watts of power without creating excessive interference with sound systems nearby. It makes life easier for touring performers because the dimmer pack can be hung at the top of lighting towers adjacent to the lighting fixtures. . . . **Joe Mielinski, Jr.,** operations manager at WPI's Alden Research Laboratory, has been elected to a three-year term on the Holden (Mass.) School Committee.

The Power Systems Group of Combustion Engineering, Inc. (C-E), has appointed **A. Edward Scherer** as director of nuclear licensing, Nuclear Power Systems Division. He will be responsible for assuring compliance with Nuclear Regulatory Commission regulations, as well as developing responses to proposed licensing criteria. After serving in the Army Corps of Engineers' nuclear power program, he joined C-E in 1968. At C-E he was most recently licensing manager. He has an MS from Pennsylvania State University, and an MBA from RPI's Hartford Graduate Center. He is a registered professional engineer, and belongs to the C-E Nuclear Speaker Service and the Atomic Industrial Forum's Steering Committee on Reactor Licensing and Safety. He also is a member of the American Nuclear Society, the ASME, and the Society of Sigma Xi, an honorary scientific research society.

Timothy Shea has been appointed service manager in the newly formed Service Department of the Westinghouse Power Systems Projects Division (PSPD). The new service department will work more closely with other Westinghouse divisions' service operations to coordinate the total service support for PSPD operating plants. Recently, Shea completed an assignment in Egypt as project director, Cairo West Unit No. 4. Previously, he was site manager for Kori Unit No. 1. Since joining Westinghouse in 1971, he has held increasingly responsible assignments.

1964

Secretary
Dr. David T. Signori, Jr
6613 Denny Pl.
McLean, VA
22101

Representative
Barry J. Kadets
26 Harwich Rd.
Chestnut Hill, MA
02167

▶*Born:* to Dr. and Mrs. **Gary Goshgarian** a son, Nathan, recently. Gary is a professor of English at Northeastern University. This year his first novel, *Atlantis Fire*, was published by Dial Press (see spring *Journal*), and he is now working on his second, which was inspired by another real life experience. (While at WPI, a classmate developed a system to beat the numbers game. Gary is weaving that system into his new novel which concerns the rip-off of the state lottery.) He was the commencement speaker at Northeastern in June.

Christopher Almy continues in his mechanical engineering post at Knolls Atomic Power Laboratory, Schenectady, N.Y. He is chief of Indian Princess Nation, treasurer of the Boy Scouts, a YMCA baseball coach, and a Sunday school teacher. He is also a major in the U.S. Army Reserve and occasionaly does a two-week stint at Ft. Monmouth, N.J. Wife Marge is a Brownie leader and does volunteer work in the school library. She and their son, Chris, Jr., are jogging companions. Daughters Jen and Katherine enjoy acrobatics, baton-twirling, and piano playing.

In January, **Peter Dornemann** accepted a new position as director of marketing at Digilab, Inc., Cambridge, Mass. . . . **Don Ghiz** remains as director of steel purchases in the purchasing department at Conoco, Inc., in Houston, Texas. . . . **Terry Harris** is now the marketing manager at Texas Olefins Co., Houston. . . . **Ron Lubowicz**, the former vice president and chief operating officer of L & T Builders, Inc., Pampa, Texas, has been elected a director and the chief executive officer of Achievement Homes, Inc., of Lubbock. Achievement Homes is active in single and multi-family construction throughout west Texas and eastern New Mexico largely through its franchising operations and various limited partnerships.

Dr. **Bruce Maccabee** has received a $2,000 award from the *National Enquirer* for his investigation of a New Zealand UFO case in which a strange object was filmed from an airplane as well as tracked by radar. The *WPI Journal* ran a story describing Maccabee's investigations in fall 1979.

Harold Monde will be chairman of the Milwaukee section of the ASME next year. . . . **Frederic Scofield** holds the post of superintendent of construction at Northern Liquid Fuels Co., Omaha, Neb. . . . Presently, **Thomas Spargo** is employed by Stanley Works in New Britain, Conn. The Spargos, who reside in Terryville, have three children.

The Peep Toad Potter

FROM PHYSICIST to pottery partner, that's a thumbnail description of the vocational life of Dick Farrell, '64, over the past few years. Describing the advantages of his current life, Dick says, "my wife and I have a lot of freedom. We have a very rich life in many ways."

Until seven years ago, Farrell, who has a master's degree from Brown University, worked as a career physicist at NASA Electronics Research Center and at Tyco Corporate Research Center. His wife, Sandra, a graduate of Massachusetts School of Art, was art director for the Jewish Community Center of Brookline and later headed the Boston YWCA pottery department.

In her spare time, Sandra made pottery in a basement studio at home. Dick became interested in the craft as he watched her turn out wares that she later sold to shops and galleries. He became so interested, in fact, that he decided to join her in the pottery business full-time.

"We made a six-month commitment to see if we could make a living out of pottery and to see if we could share our lives on a 24-hour-a-day basis," Dick reports. The commitment meant that they would have to move into larger quarters. They hoped they wouldn't have to leave New England.

A friend's suggestion eventually led them to a run-down mill by a waterfall on the Whetstone Brook in East Killingly, Connecticut. The valley surroundings were picturesque, and the mill affordable. Sandra fell in love with it immediately. "It was so romantic," she thought. "It will take a lot of work," Dick

thought. But the Farrells were young and had plenty of elbow grease. They decided to buy it.

It takes time to renovate a 200-year-old mill that was once a tannery, a blacksmith shop, and a plastics storehouse, into a livable home, workshop, and gallery. The new owners did all the cleaning and construction work themselves, in spite of the fact that for six months Dick continued to commute to his job in Waltham. Still, they managed to make progress. They lived in a small partitioned area on the third floor while creating their permanent living space on the second floor. "Aesthetically speaking, it was the pits," says Farrell, recalling the plastic-covered insulation that served as the partition.

In the early stages, Dick and Sandra had to lug water and cook on an electric hot plate. A coal stove from an old Pullman train car was their only heat source. Gradually they added plumbing and other creature comforts. Farrell engineered their water power to provide the mill with a portion of its electricity for free. His wife stripped the ancient beams with a torch until they regained their original nut-brown beauty.

Today the 30 by 40 foot living space is partitioned with white insulated panels and weathered boards. The central part of the space soars to a double-layer Plexiglass roof. There are lots of plants about, but little furniture. Adjacent to the living space is a studio-workshop with pottery wheels. The gallery and kiln and glazing room are located on the first floor.

Before moving to Connecticut, Sandra had sold her pottery to shops and galleries and at craft fairs. Now clients come to the Farrell's gallery at Peep Toad Mill. Since 1974 they've had two shows a year, on Labor Day and Thanksgiving weekends. This year, for the first time, they held a major spring exhibition in May, and they have plans to extend their other shows through weekends in September and December.

The May exhibition at Peep Toad Mill included works of 15 highly recognized craftspeople, mostly from southern New England. "We make an effort to show works that integrate well, and our approach to exhibition is one where environments are created by displaying groupings of pieces as they might be used to enhance living environments." The show was attended well, though never crowded, and was appreciatively received.

During the last decade, many serious artists have turned to craft media for creative expression, and the craft movement has been widely recognized as an important direction in American art today. "It has been exciting and gratifying for us to be part of this trend," the Farrells say.

Farrell has served on the local zoning board of appeals for the past five years, and has recently taken a central role in a citizens action group working to re-outfit a series of large local damsites for hydroelectric generation — a project whose profits are to be dedicated to public service.

Dick Farrell says of his unusual lifestyle, "at the time we decided to make this change in our lives, many people were baffled by what they saw as the sacrifice of a promising research career for uncertainty and struggle as a 'starving artist.' For me, the choice arose out of a feeling of personal incompleteness. Through my years of education and research, I had accepted an identity with my analytic mental function. The left-brain-hemisphere functions of definition and analysis tend to be developed in the world of technology at the expense of the integrative, flowing, creative functions of the right brain. Looking back, I now recognize that the initial feeling of incompleteness was actually my right brain creative function demanding inclusion in my person. Working through this identity crisis, and all its attendant changes, has certainly been difficult, but it has also been fully worthwhile."

1965

Representative:
Patrick T. Moran
100 Chester Rd.
Boxboro,MA
01719

Robert Asplund, a GTE Products Corporation research and development engineer, has been named a recipient of the Leslie H. Warner Technical Achievement Award for the conceptual design of the Flip-Phone telephone, the first GTE phone designed expressly for retail consumers. Asplund, who shared the award with a collaborator, helped design the internal electronic circuits to fit the phone's compact size. He was awarded $5,000 by General Telephone and Electronics Corporation at world headquarters in Stamford, Conn. . . . **David Bank** holds the post of manager at Servall Mfg. Corp., Fall River, Mass. . . . Dr. **Michael Boyd** works as a senior programmer at Sperry Univac, Roseville, Minnesota.

Wayne Eddy serves as a manufacturing information systems analyst at GE in Hooksett, N.H. He and his family reside in Concord. . . . **Robert Edwards** is employed as a senior geophysicist at URS/John A. Blume & Assoc., San Francisco. He has an MA from Berkeley. . . . **Robert Hawes, Jr.,** has been named director of business development for Liquid Paper Corporation, a Gillette Co., in Dallas, Texas. Most recently, he was product manager for commercial products for the Paper Mate Division of the Gillette Co. In his newly created post, he will coordinate marketing, sales, manufacturing, research and development, and engineering activities between Liquid Paper and Paper Mate. He will also look for new business opportunities. Hawes has an MBA from Boston College. Previously, he served Gillette as director of operating planning for Paper Mate and as administrative assistant to the president of the Safety Razor Division.

James Heinrich is employed as regional engineering manager at Elliott Co., Chicago, Ill. . . . **Charles Hunnicutt** has been promoted to head of the Rural and Suburban Switching Department at the Bell Telephone Laboratories Indian Hill facility in Naperville, Ill. His department is responsible for development of maintenance softwear, testing and field support of electronic switching systems that are part of Bell's national telecommunications network. Earlier, Hunnicutt was involved in softwear development of a new electronic switching system now being developed at Indian Hill. He started to work for Bell Labs in 1968, and holds an MSEE from RPI. A member of Tau Beta Pi, he also belongs to Eta Kappa Nu and Sigma Xi. He is past president of the Tri-City Hockey Association and of the Wild Rose Elementary School Parent-Teacher Organization. The Hunnicutts have two sons, David and Douglas.

Last fall, **Amar Kapur**'s company, American Industrial & Medical Products, Inc. (AIM), moved from Worcester to Auburn because more space was needed for future expansion. The firm manufactures and distributes specialty gases primarily for the food, hospital and computer industries. Recently, AIM opened a welding store offering a complete line of welding products, and it continues to offer expertise in cryogenic engineering and design. . . . **George Lemmon** is a chief engineer for EBASCO Services, New York City. . . . Still with Bell Laboratories in Whippany, N.J., **David Luber** is now supervisor of the engineering planning group. He also teaches part-time in the Fairleigh Dickinson graduate business program. . . . **Martin Soja** holds the post of manager at Price Waterhouse & Co., New York City.

1966 REUNION

OCTOBER 3-5

Secretary:
Gary Dyckman
29 Skilton Lane
Burlington, MA
01803

▶*Born:* to Mr. and Mrs. **Stephen E. Anderson** their first child, a daughter, Nora Ellen, on March 21, 1980. Steve is the chief engineer at the Lee Company, Westbrook, Conn. . . . to Mr. and Mrs. **Robert W. Trefry**, a son, Brian, who joins sister, Jennifer, 4. Currently, Trefry is a project engineer at Rust Engineering, Birmingham, Ala., where he is working on the solvent refined coal project.

Gary Cassery is employed as an accounting and inventory control manager at Texas Instruments in Attleboro, Mass. . . . Still with Torrington Company, **Robert Coates** presently serves as district sales engineer in Charlotte, N.C. He is associated with the Torrington Special Products Division. . . . **Kendall Cowes** works as a senior engineer in advanced development at Datatrol, Inc., Hudson, Mass. . . . Earthquake Engineering Systems, Inc., Boston, employs **Gary Dyckman** as a project manager. The Dyckmans have two children and live in Burlington. . . . **Hank Flynn** holds the post of manager of test engineering at Nixdorf Computer Corp., North Reading, Mass.

Raymond Gallant works as a district service manager at Waters Associates, Inc., Medford, Mass. . . . **Robert Holt** has joined Ocean Data Systems, Inc., Rockville, Md., as senior technical associate. . . . **Philip Hopkinson** holds the position of manager of engineering in the specialty transformer department at GE in Fort Wayne, Ind. He is a professional engineer in North Carolina. . . . **David Jorczak** has a new post as senior mechanical engineer at Kollmorgen Corp., Electro-Optical Division, Northampton, Mass. . . . **Stephen Kaiser** serves as president of Kaiser Sales Corporation, Los Angeles. . . . **Robert Levine** is manager of product planning and business development at GE in Warren, Mich. He and his wife, Mala, have two children. . . . **Gerald Lucas** is employed as staff manager at AT&T Co., Bedminster, N.J. . . . Presently, **Paul Peterson** works as manager of technical support at Software AG in Lakewood, Colo. . . . **John Petrie** serves as senior applications engineer at ITT North Microsystems, Deerfield Beach, Fla.

Robert Rapp is assistant area superintendent at du Pont in Aiken, S.C. . . . **Peter Sommer** writes that he and his wife have just adopted two beautiful children. . . . **Robert Sternschein** is employed as a manufacturing superintendent at Colt Firearms, Hartford, Conn. He has an MSIE from Northeastern, is married, and has three children.

1967

Secretary:
John L. Kilguss
5 Summershade Circle
Piscataway, NJ
08854

Representative:
Douglas W Klauber
10 Alice Dr.
Nashua, NH
03060

▶*Born:* to Mr. and Mrs. **Lawrence R. Gooch** their third child, Erin Margaret, last August. Presently, Gooch serves as engineering manager in the contract-engineering division of the Farrel Machinery Group in Ansonia, Conn. He works with **Jim Haury, '69; Fred Bartkiewicz, '63;** and **Bob Bennett, '64.**

Charles Blanchard has been named manager of the R&D department of CPC Engineering Corp. He also continues as manager of the environmental products division. In addition to nationwide responsibility for the environmental product line, he will be responsible for research and development. Since 1971, Blanchard has served CPC as project engineer, engineering manager of the pneumatic ejector division and manager of the environmental products division. He belongs to the ASME and the New England Water Pollution Control Association. The chairman of the Sturbridge (Mass.) Water & Sewer Commission, he is active as a scout cubmaster, too. . . . **John Cahalen** is employed as superintendent of process engineering at Schweitzer Division in Lee, Mass.

Currently, **Richard Court** is the chairman of the Greater Danbury (Conn.) Section of the American Society for Quality Control. In June of 1979 he passed the exam and is now an ASQC certified quality engineer. . . . **Ronald Dill** has been promoted to the position of manager of fiber materials development and evaluation at Goodyear Tire and Rubber in Akron, Ohio. He has been with Goodyear since graduation. . . . Dr. **Francis Gay,** who received his PhD from Northwestern last year, now serves as supervisor of softwear engineering at Siemens Corporation in Boca Raton, Fla. He, his wife, Susan, and two children reside in Coral Springs. . . . **Stephen Lak** received his PhD from UMass last year. He is a reliability engineer in the Ambac Division of U.T.C. . . . **Jack Rahaim** holds a post in

corporate training at DEC, Maynard, Mass.

Sudhir Shah was appointed director of engineering at Purcell Associates, Hartford, Conn. He is also a vice president of the firm and has been chief structural engineer. In his new role, he will be responsible for the technical quality of all engineering projects at Purcell. Shah, a registered professional engineer, attended the University of Gujaret, where he earned his BSCE. He holds an MSCE from WPI. He belongs to the ASCE, the National Society of Professional Engineering, and the American Concrete Institute. . . . **Giri Taksali** serves as a senior project engineer for the Kaiser Transit Group in Miami, Fla. . . . **Fred Turcotte** is with Wood Structures, Worcester, Vt.

1968

Secretary:
Charles A. Griffin
2901 Municipal Pier Rd
Shreveport, LA
71119

Representative:
William J. Rasku
33 Mark Bradford Dr
Holden, MA
01520

▶*Born:* to Mr. and Mrs. **John H. Holmes,** a son, David, on August 18, 1979. . . . to Mr. and Mrs. **George Landauer** a son, Brian Howard, on December 13, 1979. . . . to Mr. and Mrs. **Raymond Racine** their third child and second son, Bryan, on March 8, 1980. On April 1, Racine was appointed unit supervisor for the engineering projects procurement unit of Aramco Services Company in Houston. He is responsible for contracting matters related to Aramco's engineering and construction activities in Saudi Arabia. In May, he graduated from South Texas College of Law. In July, he was slated to take the bar exam. . . . to Mr. and Mrs. **Kenneth R. Blaisdell, Jr.**, their first child, Michael Eric, on March 20, 1980.

Arnold Antak was promoted to office administrator for the Boston office of Howard Needles Tammen & Bergendoff, Engineers-Architects, in January. He is responsible for personnel administration, budgeting, insurance, financial administration and general office administration. . . . **Donald Bergstrom** serves as assistant project manager at Walsh Construction Co. in Longview, Washington. Presently, he is managing construction of a new paper machine complex for North Pacific Paper Corp. . . . Major **John Caprio**, U.S. Army, is stationed at Ft. Bragg. He and his wife, Susan, have three children. . . . Dr. **John Cryanski**, who has a PhD from the University of Wisconsin, is with the Theoretical and Physical Chemistry Institute of the National Hellenic Research Foundation in Athens, Greece.

Ronald Cummings has joined the law firm of Delio and Montgomery, New Haven, Conn. He holds an MS from Northeastern and a law degree from Suffolk. Currently, he is a candidate for a master of law degree in trade regulation at New York University School of Law. Formerly, he was associated with the law firm of Zarley, McKee, Thomte, Vourhees and Sease in Des Moines, Iowa. . . . **Richard Dubsky** is chairman of the departments of mathematics and science at St. Albans School in Washington, D.C. Also, he serves as an instructor of mathematics at the University of Maryland. He is working on his PhD. . . . **Robert Gosling** has been named the 1980 New Hampshire Young Engineer of the Year. He is a staff engineer in the civil engineering department at the Public Service Company of New Hampshire. A member of the New Hampshire Society of Professional Engineers, he is the Society's current secretary and co-editor of its publication, *The Observer.* He is a director of the Bow Athletic Club and belongs to the Bow Rotary Club. He serves as chairman of the Bow Industrial Development Committee and as a member of the WPI Alumni Publications Committee and a WPI Alumni Fund volunteer.

Richard Hampson is a staff engineer at IBM in Charlotte, N.C. . . . **John Korzick** owns Korzick & Company in Concord, Calif. . . . **Eugene Murphy** holds the position of sales applications manager at Vanzetti Infrared, Canton, Mass. He is associated with EIT-Massachusetts Board of Registration of Professional Engineers. Last year he received his MSMSE from WPI. . . . **William O'Neil** is now a senior cost engineer for Gilbert-Commonwealth Associates, Inc., Oak Ridge, Tenn. . . . Recently, **Ronald Porter** was appointed to the finance department faculty at Boston College. He is a real estate investment-trustee for hundreds of apartments throughout Massachusetts. His article, "Calculating Holding Period Returns for Real Estate Investments," was published in *Real Estate Review*, the journal of the New York University Real Estate Institute.

Frank Posselt works for DICOA in Savannah, Ga. . . . Since graduation, **James Powers** has been with Metcalf & Eddy. Last year, he was in Egypt. He has worked on numerous water supply projects in the U.S. and abroad. . . . Continuing with Perkin Elmer Corp., **Arnold Schwartz** is now a senior engineer headquartered in Norwalk, Conn. . . . Formerly with Reed and Prince, Jaffrey, N.H., **Richard Seymour** presently serves as production superintendent at New Hampshire Ball Bearings, Inc., Peterborough, N.H. He has an extensive background in all phases of design, production, and plant engineering. . . . **Greg Sovas** is now chief of the Bureau of Mineral Resources in New York state.

1969

Secretary.
James P. Atkinson
41 Naples Rd.
Brookline, MA
02146

Representative
Michael W. Noga
West Bare Hill Rd.
Harvard, MA
01451

▶*Born:* to Mr.and Mrs. **Gerry A. Blodgett** their first child, Sarah Katharine, in December. Gerry recently received his LLM degree in patent and trade regulation law from the George Washington University Law School and is practicing patent law in Worcester. . . . to Mr. and Mrs. **Andrew DiLeo** their first child, Maria Rose. Andy, for the last year, has enjoyed self employment as a free-lance structural engineer.

Still with Raytheon, **Dennis Agin** now works as software program manager for the firm in Sudbury, Mass. He and his wife have three children. . . . **Anthony Baglini** owns Turn of the Century Brass Co. in Providence, R.I. . . . **Arthur Evans III** serves as corporate market manager at Goulds Pumps, Inc., Seneca Falls, N.Y. . . . **Andrew Heman** works as process engineer at Union Carbide Corp., Jacksonville, Fla. . . . **Curtis Kruger** is a sales engineer at Dresser Industries, Walnut Creek, Calif. . . . **Anthony Leketa**, assistant area engineer with the U.S. Army Corps of Engineers, Ft. Devens, Mass., is currently responsible for contract administration of over $40 million worth of construction contracts in the New England-Plattsburgh, N.Y., area. He is a registered professional engineer in Massachusetts and belongs to the Society of Military Engineers.

Ronald Lewis is with the Civil Engineer Corps, U.S. Navy, in Japan. As senior activity civil engineer, he supervises five Civil Engineer Corps officers. He is concerned with facilities planning and programming maintenance, repair, construction planning, and budgeting. Recently, he received his MS from the University of Florida and was elected to Tau Beta Pi. He enjoys running and racquetball. . . . **Daniel Lipcan** has designed and constructed a new home in Sandwich, Mass. He holds the post of plant manager at Boston Insulated Wire & Cable Co. in Plymouth. The Lipcans have two children, Daniel and Nancy. . . . **Daniel Lorusso** is a consultant for Lorusso Associates, Pittsfield, Mass. He is involved with digital electronic design and microprocessing. An instrument-rated pilot, he belongs to the Pittsfield Airport Commission. . . . **"Sandy" Malcolm,** after ten years in New Jersey, has returned to Massachusetts, where he is manager of quality assurance for Johnson and Johnson in Weymouth. He is a member of ACS and ASQC.

Chris Masklee is an associate materials and research engineer for the state of California in Sacramento. He is also a real estate broker. . . . **Robert Mayer** holds the post of chief engineer, electronics, for Control Products Division, Hackettstown, N.J. . . . Spare time activities for **Tom McAuliffe** include coaching Little League baseball and soccer, advising a church youth group, and engaging in marriage encounters. An area supervisor in production for du Pont near Houston, he has 29 people reporting to him. He supervises operation of utility supply facilities and sulfuric acid production facilities. The McAuliffes have two children.

Edward Mierzejewski works as a transportation planning consultant for Chase, Rosen & Wallace, Inc., Alexandria, Va. He is active in church groups and in various professional societies. . . . **Roger Miles** holds the post of president of Doten Management Corp., Plymouth, Mass. The firm manages nine weekly newspapers and a tourist publication, and also does commercial printing. Not long ago, Miles started a new publication in Maine. . . . **Eric Nickerson** is presently employed as a production engineering manager at Teradyne Components, Nashua, N.H., where he is responsible for all products shipped out of the plant. For two years, he helped develop a new connector product line at Texas Instruments. He has built a new house and is landlord for two houses in Connecticut. . . . Continuing with Stone & Webster, **Michael Noga** directs the development of equipment and plant arrangements for fossil fired and advanced technologies electric generating plants. He and his wife designed and subcontracted the construction of their house in Harvard, Mass. They have two children.

Paul Norkevicius serves as a product development engineer at Ford Motor Co., Dearborn, Mich. He is responsible for a portion of the development and certification testing of passenger car tires. . . . **Michael Nowak** is a chemist at Decotone in Westminster, Mass. . . . **Joel O'Rourke** works as a district education specialist at Computer Sciences Corp., Rosslyn, Va. . . . **John Paolillo** holds the position of senior associate programmer at IBM in Endicott, N.Y. . . . Still with United Illuminating Co., **R. Craig Pastore** applies protective relaying on the transmission and distribution systems for an electric utility. He is a golfer and bowler and is located in Guilford, Conn. . . . **Mahendra Patel** enjoys gardening and every summer grows some vegetables from his native India. He likes photography, too. With Boston Edison since 1969, he is involved with power plant design and construction. A registered professional engineer, Massachusetts, he also is an active member of the ASME, and served on the Boston section executive committee as chairman. Presently, he is committee chairman for honors and awards, ASME, Region I. . . . Running, car rallies, and photography are just a few of **Al Pauly**'s hobbies. He is a senior research engineer at Michelin America's Research & Development Corp., Greenville, S.C. The Paulys are the parents of Benjamin and Justin.

Andy Perreault, a nuclear engineer at Knolls Atomic Power Lab., has been active with the American Nuclear Society attempting to educate the public on the benefits of nuclear power. At Knolls he helps to ensure that the nuclear reactors the lab designs, and sometimes operates, for the Naval Reactors branch of the DOE, are functioning properly. He is a professional engineer. His wife is pursuing an MBA at RPI. . . . **Stephen Phillips** continues as the owner of Phillips Associates, Boston, which is concerned with graphic and industrial design and communications, as well as product design and development. Recently, he's been developing toys and games and plans to form a product development company. He belongs to the Art Directors Club of Boston. . . . **David Pietraszewski** is still with the U.S. Coast Guard Research & Development Center in Groton, Conn., where he works on instrumentation and data communications system design and development. He was named the recipient of an award for outstanding contributions to the Center. Presently, he is designing a heat efficient house for his family. . . . **Donald Rapp** continues at du Pont and is now located in Lexington, Ky., where he is a sales and technical representative in explosives. He and his wife, Elaine, have two children, Bryan and Derek.

Bidyut Rath is an associate at BD/International in Houston. . . . **Robert Reidy**, a senior application engineer at Megatherm, East Providence, R.I., works closely with consulting engineers and architects on commercial and industrial projects involving building load management in conjunction with thermal storage designs. "Play a lot of golf, but can't shoot my age yet!" Reidy belongs to the Providence Engineering Society and the ASME. . . . **James Richey** is employed as manager of power supply design engineering at Data General, Westboro, Mass. He has an antique clock business, "The Olde Tyme Shoppe," where he buys, sells, and repairs antique clocks. The Richeys have a baby son, James Jacob. . . . **Ronald Roberts**, still with Western Electric, Inc., presently serves as senior test development engineer in North Andover, Mass. As engineering group leader he is responsible for development of manufacturing tests on data and switching communication systems. He has an MS from Northeastern and is an instructor at Northern Essex Community College. Also, he is involved with Resource Parents for Boston Children's Hospital Developmental Evaluation Clinic.

Charles Robinson, Jr., is manager of operational planning for customer services at Foxboro (Mass.) Company. A member of the Foxboro Soccer Association, he also coaches and referees local soccer teams. He enjoys cross country skiing, tennis, and bikes to work every day. . . . A senior engineer at Raytheon-Missile Systems Division in Bedford, Mass., **Rene Roy** is responsible for missile borne computer programming on the Patriot missile system, as well as the automatic test software. The Roys have three sons. . . . **Robert Scott**, director of planning for the City of Virginia Beach, Va., coordinates the physical development of the city, "The fastest growing city on the East Coast." . . . **Steve Selinger** is senior design engineer, chassis, at Volkswagen of America in Warren, Mich. He has design and release responsibility for suspensions and exhaust systems on U.S. built Rabbits. For seven years he has been involved with racing sports cars. He likes photography and amateur radio. . . . Continuing with Polaroid, **Joseph Senecal** does chemical process R&D as required to transform laboratory procedures to viable full scale systems. He lives in Worcester and commutes to Polaroid in Cambridge by train. While commuting, he enjoys reading serious fiction. He has started a small wine tasting group.

Vinubhai Shah works as senior mechanical engineer at Commonwealth Associates, Jackson, Mich., where he is concerned with nuclear and non-nuclear piping system analysis. . . . While not on duty as a staff engineer at IBM in Endicott, N.Y., **Barry Shiffrin** may be found developing pictures in his recently finished dark room. He takes pictures and makes color prints from the slides. Currently, he is turning the basement into a family room area, as well as pursuing his interest in magic. . . . **Tom Starr** (Gwazdauskas) holds the post of technology manager of nuclear processes at Helix Process Systems in Westboro, Mass. He manages the process design effort for pollution control systems for nuclear power plants. In the community, he is assistant soccer coach for Southboro Youth Soccer and president of the neighborhood civic association. Also, he is a local section officer of AIChE. . . . **Robert Stessel** is living on board a 1910 classic boat that he is rebuilding in Beverly, Mass. Originally, the boat was a Harbor Ferry from Marblehead. In 1978, Stessel survived the blizzard aboard the "Kelpie" in Beverly Harbor. A technical consultant to the Northeast Surf Patrol, he occasionally engages in search and rescue with the group. He belongs to the National Marine Electronics Association. He is the proprietor of Advanced Marine Electronics in Beverly.

Still with Bechtel, **Martin Surabian** presently supervises mechanical engineers in the design of mechanical systems for nuclear-coal power plants. He is located in Gaithersburg, Md., and serves as a church trustee and as a baseball and football

coach. . . . **John Taylor** belongs to the Technical Association of the Pulp and Paper Industry, which he serves as a member of the coating process committee. He is a member of the Research Committee at the University of Maine. His hobbies include jogging, photography, and building HO scale train layouts. He continues as a group leader in coating process development at St. Regis Paper Co., West Nyack, N.Y. . . . **John Thompson, Jr.,** holds the post of vice president of finance and chief financial officer at SW Ind/Stowe Woodward Co. in Newton, Mass. The Thompsons have three children and reside in Wellesley. . . . **Charles Trent** serves as technical services manager at Crompton & Knowles Corp., Reading, PA. One of his duties is to establish procedures and specifications for products. He introduced computer color control for textile dyes. Trent has an MBA from Lehigh and belongs to the American Association of Textile Chemists and Colorists and the American Chemical Society. . . . **Kimball Watson** has been designing and building hydrofoil sailboats. A staff engineer at IBM in Essex Junction, Vt., he is concerned with reliability analysis of integrated circuits. . . . **Phillip Wilsey, Jr.,** enjoys a wide variety of outdoor activities: hiking, canoeing, kayaking, cross country skiing, and snowshoeing. Since 1971, he has been with Pratt & Whitney Aircraft, East Hartford, Conn., where currently he is a product support engineer. His present responsibilities include monitoring field problems in a high pressure compressor and using the data to provide customer input to new engine design or proposed modifications. The Wilseys have three children and reside in Newington, Conn. . . . **Steven Zieve** plays golf and is a life master in bridge. He is a programmer-analyst for the Hartford (Conn.) Insurance Group, for which he provides support for operations research and property casualty actuarial departments.

1970

Secretary
F. David Ploss III
208 St. Nicholas Ave.
Worcester, MA
01606

Representative.
Garrett G. Graham
150 Brookside Rd.
Needham, MA
02194

▶*Married:* Dr. **Lee C. Malbon** and Ann M. Murphy in Boston, Massachusetts, on April 11, 1980. The bride graduated from Salem State College and received a master's degree in English from Boston College. She is an English teacher at Malden Senior High School. The groom received a double master's degree in physics and education and a doctorate in education from Boston College. He serves as vice principal of Burrillville (RI) Regional High School and also teaches computer science at Bentley College, Waltham, Mass.

Richard Abrams holds the post of director of nuclear product development at Helix Systems in Westboro, Mass. . . . **Bernard Belouin** teaches at Mt. Greylock Regional High School, Williamstown, Mass. . . . Dr. **Mark Brown**, who has a PhD from the University of Minnesota, is a senior research engineer at American Can Co., Neenah, Wisconsin. . . . **John Cattel** is now project manager at Riley Stoker Corp., Worcester. . . . **Donald Colangelo** works as a consultant for Stone & Webster Management Consultants in New York City. . . . **Dom Forcella** currently serves as executive director of the Council on Environmental Quality at the state office building in Hartford, Conn. . . . **Frank Gardner** is employed as a senior plant engineer at Nuclear Energy Services in Danbury, Conn. . . . **Robert Greenwald III** is a design engineer at Auditronics, Inc., Memphis, Tenn.

Stephen Johnson has been promoted to group supervisor of the Chemical Engineering Section at the Babcock & Wilcox Co. Alliance (OH) Research Center. His group (combustion technology) is researching the clean combustion of coal in utility and industrial steam generators. He joined the firm in 1976 as a research engineer and has been a senior research engineer since 1978. Earlier, he had been with Riley Stoker Corp., Worcester.

The Boston section of the American Society for Quality Control (ASQC) has elected **Kent Lawson** of Norwood, Mass., its publicity chairman for 1980. He will serve as a member of the executive committee and will be responsible for the monthly publicity in the national *Quality Progress Magazine*, the *Engineering Societies of New England Journal, Newsletter,* the meeting notices, and the media exposure campaign. He is a senior quality engineer for the new products development group of the Polaroid Corp., Cambridge. Also, he is vice president of the board of directors of the Nassau Gardens Cooperative Housing Association, Inc., of Norwood, a senior member of ASQC, a member of the ASME and an officer of the Polaroid bowling league. He has an MS from Northeastern. The ASQC has over 32,000 members nationwide. It is a society of professionals engaged in the management, engineering, and scientific aspects of quality and reliability. The Boston section, founded in 1945, is the second largest with nearly 900 members.

Paul Lee continues as principal engineer at Lockheed Electronics Co. in Plainfield, N.J., where he and his wife, Lily, reside. . . . **Bradford Myrick** works as a project engineer at Ingersoll-Rand Co., Allentown, Pa. . . . **Girish Patel** is employed as a structural engineer at Bechtel Power Corp., Gaithersburg, Md. . . . **John Sztuka, Jr.,** holds the post of product supervisor at Hercules, Inc., Wilmington, Delaware. He has an MBA from Western Michigan University. . . . **Philip Warren** was recently promoted to production manager-finishing for the Graphic Products Division of Nashua Corporation in Merrimack, N.H. . . . **Louis Zitnay** is an environmental engineer at IBM Corp., Rochester, Minn.

1971 REUNION
OCTOBER 3-5

Secretary
Vincent T. Pace
4707 Apple Lane
West Deptford, NJ
08066

▶*Married:* **Thomas A. Pandolfi** and Pat Hendrix on March 29, 1980. The groom is a senior software engineer. . . . **Frank W. Steiner** and **Elizabeth C. Poulin,** '73, in Montego Bay, Jamaica on April 9, 1980. Beth is a project engineer for Foster-Miller Associates in Waltham, Mass.

▶*Born:* to Mr. and Mrs. **Carlton E. Cruff** their first child, a daughter, Melanie Augusta, on February 17, 1980. . . . to Nancy and **Ben Katcoff** a daughter, Rebecca Suzanne, on March 16, 1980. The Katcoffs also have a son, Gregory, 2. . . . to Mr. and Mrs. **Robert Trachimowicz** a son, Matthew Neil, on July 9, 1979. Matthew joins brother Timothy, 3. Trachimowicz was recently promoted to resident engineer for EBASCO Services, Inc. . . . to Jacquelyn and **Urmas Volke** a son, Erik, on April 11, 1980.

Don Baron serves as industrial sales manager at Logetronics, Inc., Springfield, Va. He and his wife live in Alexandria. . . . **Russ Batson** of Wells, Me., builds custom designed, solar-heated homes through Green Mountain Homes of Royalton, Vt., **James Kachadorian**, '61, president. . . . **Avanish Bhagat** holds the position of managing director at Corrosion Control Services, Ltd., Bombay, India. He and his wife, Minal, have one child. . . . **Richard duFossé** is currently employed as a telecommunications analyst at Data General Corp., Westboro, Mass. The duFossés and their two children live in Northboro. . . . **Robert Gazda** is vice president at K&W Machine & Tool in Springfield, Mass. . . . **Alan Gradet** works as a senior environmental engineer at ERT in Houston, Texas.

Paul Grady teaches in Waltham, Mass. . . . **John Griffin** holds the post of district manager of real estate operations at New England Telephone, Boston. . . . Continuing with Riley Stoker Corp., **William Helliwell, Jr.,** is now district service manager in Northglenn, Colo. He and his wife live in Westminster. He has an MBA from the University of Denver. . . . **Louis Howayeck** serves as system effectiveness manager at Stencel Aero Engineering Corp. in Arden, N.C.

Bruce Leffingwell is a market manager at Olin Corp., Stamford, Conn. . . . **John Lind** works as a field engineer at General Telephone Co., Sumter, S.C. . . . A senior sales engineer at Westinghouse, El Monte, Calif., **Richard Pace** is also studying for his MBA from the University of Redlands. The Paces and their three children reside in Diamond Bar. . . . **Gerald Parrott** has been promoted to the post of chief engineer at Rock of Ages Corp., Barre, Vt. He is responsible for all phases of engineering within the Barre company and all of its subsidiaries. He joined the Graniteville firm in 1976 as a staff engineer and has performed in all functions of the engineering department since that time. He has taken numerous engineering and management courses and he is a member of the Mechanical Engineering Honor Society. Previously, he was with Westinghouse.

Abbas Salim is a staff engineer for Martin Marietta in Denver, Colo. Presently, he is responsible for power distribution and control for a 350 KW solar power plant for Saudi Arabia. He, his wife Zubeda, and two children live in Littleton. . . . **Francis Scricco** holds the post of manager of strategy development in the consumer products and services sector at GE in Fairfield, Conn. . . . **Daniel Smith** works for Morgan Construction in Worcester. . . . **David Winer** is employed as a senior engineer at Orion Research, Inc., Cambridge, Mass.

1972

Secretary
John A. Woodward
101 Putnam St.
Orange, MA
01364

Representative:
Lesley E. Small Zorabedian
16 Parkview Rd.
Reading, MA
01867

▶*Married:* **Theodore A. Martin** and Cindy Jarvenpaa on April 12, 1980, in Westminster, Massachusetts. The bride graduated from Mount Wachusett Community College and was employed at Central Veterinary Supply of Westminster. Her husband is with MacDermid, Inc., of Connecticut.

▶*Born:* to Mr. and Mrs. **William Kamb** a daughter, recently. Kamb is a class agent. . . . to Mr. and Mrs. **T. Richard Price** a son, Jamie, on March 3, 1980. Sister Sheila is eight.

Gary Dunkleberger is an IBM systems programming manager at Aerospace Corporation in El Segundo, Calif. . . . In June, **Jim Hall** was appointed director of marketing, Construction Products Division, at Norton Company in Gainesville, Ga. Previously, he was with the Safety Products Division in Cranston, R.I. . . . **Paul Lavigne** was named plant superintendent for the Roller Chain Division of Rexnord, Inc., Worcester, which he joined last year as manager of industrial engineering. He belongs to the American Production and Inventory Control Society and the Society of Manufacturing Engineers.

Richard Logan, CPA, is president of Positron Computer Corp., Ashland, Mass. He is concerned with EDP consulting, business management consulting, and business software. . . . **Richard Podolny** has been certified as a Rolfer by the Rolf Institute of Boulder, Colo. . . . **Michael Rapport** has been promoted to actuarial associate in the Penn Mutual Life Insurance Company's pension department. He is responsible for assisting with actuarial certifications of defined benefit pension plans, reviewing pension valuation reports, and developing actuarial procedures. With the company since 1978, Rapport is an associate of the Society of Actuaries, a member of the American Academy of Actuaries, and the Philadelphia Actuaries Club.

James Tarpey was promoted to manager of transportation for Orange-Rockland Utilities of Pearl River, N.Y. He is in charge of the company's transportation policies and oversees the selection and maintenance of passenger vehicles, trucks, and other construction equipment. In 1972, he started work as an assistant electrical engineer at the firm. In 1975, he was named general supervisor of line technical services, and in 1979, he was promoted to eastern division assistant superintendent of overhead lines. He is a registered professional engineer in New York, and has a degree from New Jersey Institute of Technology in Newark.

Thomas Tracy has been elected to a three-year term on the Uxbridge (Mass.) School Committee. Recently, he was promoted to marketing engineer in the proposal group at Stone & Webster, Boston. A life-long resident of Uxbridge, Tracy belongs to the Uxbridge Historical Society, as does his wife. He is an assistant scoutmaster, a member of Phi Kappa Theta, and serves as the editor of the national alumni newspaper, the *Temple*. Tracy, who has a master's degree from Northeastern, believes that inflation is the most serious problem facing schools in the 1980's. He has two children, Joanne, 6, and Michael, 3. . . . **Richard Wallace** is employed as a senior civil engineer at Daniel Construction Company, Greenville, S.C. He, his wife, Diana, and child live in Greer.

1973

Secretary
Jay J. Schnitzer
322 St. Paul St.
Apt. #3
Brookline, MA
02146

Representative
Robert E. Akie
33-8 Sheridan Dr.
Shrewsbury, MA
01545

▶*Married:* **Gene L. Franke** and Arlene L. Bremer on September 22, 1979. The bride attended Essex Community College and is a credit investigator for First National Bank of Maryland. The groom is a metallurgist and project engineer at the David W. Taylor Naval Ship R&D Center in Annapolis. The couple resides in Severna Park. . . . **Robert J. Nacheman** and Jessica R. Eth in Teaneck, New Jersey, on May 25, 1980. Mrs. Nacheman graduated from the University of Pennsylvania and holds a master's degree from Columbia. She specializes in product safety and public health at Mobil. Her husband is a project engineer with Lev Zetlin Associates, Inc., of New York. He is studying for his master's degree in structural engineering at City College of the City University.

▶*Born:* to Mr. and Mrs. **Timothy A. French** their first son, Timothy John, on April 3, 1980. Tim graduated from New England School of Law with a Juris Doctor degree in June. He will join the Boston patent law firm of Fish & Richardson as an associate. . . . to Mr. and Mrs. **William E. Henries** a second daughter, Elizabeth Ann, on March 21, 1980. Henries has a new job as senior structural engineer with Yankee Atomic Electric Co., Westboro, Mass.

Robert Akie works as a sales engineer at Pat Jenks Assoc., Wakefield, Mass. . . . **Dennis Beliveau** is involved with production scheduling and analysis in GE's Gas Turbine Division, Schenectady, N.Y. . . . **Jeffrey Blaisdell** holds the position of project manager at George B. H. Macomber Company (builders), Boston, Mass. The firm is concerned with large construction in the New England area. . . . With Control Module, Inc., for over four years, **Chris Broders** was recently promoted to chief engineer. He is located in Enfield, Conn. . . . **Richard Brontoli** writes: "Enjoying many large construction projects throughout Germany." He is still stationed at Baumholder where he is a commander for B Company. . . . **Paul Brown, Jr.,** is general foreman of mechanical maintenance at RSR Corp., Dallas, Texas. . . . **Michael DeCollibus** currently holds the post of sales manager at Dynamac, Inc., Marlboro, Mass. He, his wife, Cheryl, and two children reside in Nashua, N.H.

Richard Filippetti, along with several other family members, won a total of $24,505 on the television game show "Family Feud," which was aired in May. He participated in the California-based show with his sister, Frances Morast, and her husband, and another sister, Nancy Scharland, and her husband. The family was one of 150,000 families who responded to a recruitment drive by the show's producers a year ago. Only 21 families from New England were selected to compete. Filippetti says his family taped seven shows: two on one day and five on another. "We were tired. We had only ten minutes to relax and change clothes between tapings." The group discovered it was considerably easier answering questions in front of the TV set at home instead of in front of the camera. "I developed cramps from nerves," Filippetti confides.

All expenses for the family, including plane fare to Hollywood, meals, and hotel accommodations were paid for by the show's producers. Dick, a manufacturing manager at Goddard Valve Corp., Worcester, says, "I expect to be hearing from the IRS shortly."

Filippetti has two other news items: his second child, Gregory Michael, was born on March 2nd; and he was recently promoted to varsity status in the Collegiate Basketball Officials Association.

Presently, **Michael Greenbaum** is a patent attorney with Wigman & Cohen in Arlington, Va. . . . **George Harris** is now a senior support engineer with Gould-Modicon, a post he has held since April. . . . **Ed Jamro** has been elected chairman of the New Jersey Chamber of Commerce South Jersey Environmental Committee. Ed was the main force behind the organization of the committee which consists of environmental representatives from all major oil and chemical companies located in the southern New Jersey area. . . . **Subhash Johar** serves as a senior engineer at Bechtel Corp., San Francisco, Calif. . . . **Charles Kavanagh** works as a project coordinator at Value Line Construction Corp., Huntington, N.Y. . . . **Kenneth Makowski** is employed as a training engineer at the Power Authority, State of New York, New York City. He resides in Stamford, Conn.

During his recent travels as national president of the ASME, Prof. Donald Zwiep met with **Firdosh Mehta** in Edmonton, Canada. . . . **Bruce** and **Allison Huse Nunn** are currently located in the state of Washington, where Bruce serves as assistant superintendent for the Boise Cascade pulp mill in West Tacoma. The Nunns and their two children moved to Gig Harbor right after Christmas. They write: "We're enjoying the Northwest scenery. We survived having our moving van overturn en route to Washington and a month's motel stay with two preschoolers." Allison keeps busy with the children and their animals. She and Bruce would welcome a visit or note from alumni passing through the area. . . . **Maryann Bagdis Pace** holds the post of senior consultant at Peat, Marwick and Mitchell in Dallas, Texas. She works in the energy regulatory group for the oil and gas industry, and has done some independent consulting. . . .

James Risotti was recently awarded his MBA under the executive MBA program conducted by the Suffolk University Graduate School of Administration. He belongs to Delta Mu Delta National Honor Society and is employed at GE in Lynn, Mass. The executive program is offered exclusively on Saturdays for those in middle or upper level management positions. . . . **Peter Runyon** works as a technical training instructor for GE in Schenectady. He is associated with the GE Field Engineering Development Center. . . . **Ali Shafigh** serves as an assistant professor at the College of Computer in Tehran, Iran. . . . **Ken Therrien** holds the position of service engineer at Hamilton Standard, Windsor Locks, Conn. . . . Presently, **Tom** and **Kathy Zawislak Dagostino** are employed by Tektronix in Beaverton, Oregon. Tom is a market segment manager doing market research and Kathy is a software engineer designing the operating system for a real-time debugging option for a microprocessor development aid. They are both class agents.

1974

Secretary
James F. Rubino
18 Landings Way
Avon Lake, OH
44012

Representative.
David G. Lapre
P.O. Box 384
Tunkhannock, PA
18657

▶*Married:* **Mark E. Ostergren** and Charla J. Cottone of Marion, Illinois on May 19, 1979. Mrs. Ostergren serves as supervisor of Southern Illinois Christian Academy. Her husband is with Babcock & Wilcox. . . . **Michael W. Pontbriand** and Cynthia D. Stafford in Billings, Montana. The bride graduated from Woodlawn High School in Baton Rouge, La. She is employed at Busch Gardens in Tampa, Fla. The groom works for Badger Company in Tampa. . . . **Jay K. Thayer** and Pauline Blois in Westboro, Massachusetts, on February 2, 1980. Mrs. Thayer graduated from Salter Secretarial School and is an executive secretary at Management Decision Systems, Waltham. Her husband is a senior mechanical engineer at Boston Edison Co., Nuclear Division, Boston.

▶*Born:* to Dr. and Mrs. **Duane R. Arsenault** a son, Kevin Duane, on October 10, 1979. Kevin joins his sister, Crystal Lynn, 2. In December, Arsenault received his doctor of electrical engineering degree from RPI. Currently, he is a full staff member at MIT Lincoln Laboratory, where he is doing research on a surface-acoustic-wave chirp transform processor — work that is similar to that found in his doctoral thesis. One of the other full staff members at the Lab is Dr. **Victor Dolat, '64**. . . . to Mr. and Mrs. **Michael S. Martowska** their first child, Michelle Margaret, on March 16, 1980. Martowska has been promoted from supervisor of incoming quality assurance to supervisor of package research at Clairol, Inc., in Stamford, Conn.

Dennis Anctil holds the post of design engineer at O'Brien & Gere Engineers, Inc., Syracuse, N.Y. . . . **Ann Anderson** works as an analyst in the software department at Computervision in Bedford, Mass. . . . **Paul Boulier** serves as a project leader in the research and development group, Borden, Inc. — Thermoplastics Division, Leominster, Mass. . . . **Chuan-Ju Chen** is employed as a senior engineer at Monsanto Plastics & Resins Co., Indian Orchard, Mass. . . . **Wayne Chepren** was commissioned a second lieutenant in the U.S. Air Force upon graduation from OTS at Lackland AFB, San Antonio, Texas. He is now at Norton AFB in California. . . . **David Clew** is a weatherization specialist at Pacific Gas & Electric in San Jose, Calif. He and Mickie have two children. . . . **Todd Cormier** serves as a project engineer at Halliwell Associates, Providence, R.I. The company is presently contracted to 14 firms to redevelop their hydroelectric facilities.

Steve Dacri, who appeared at WPI this spring, entertained at the Speidel national sales meeting in Newport Beach, Calif., in May. Summer engagements are slated aboard the MS Princendam and New York to Bermuda cruises aboard the Rotterdam and Volendam. . . . Capt. **Robert Flanagan, Jr.,** serves as company commander for Company C, 2d Battalion, 4th Infantry, in the U.S. Army, Germany. He has an MS in physics from MIT.

Gary Golnik is a member of the technical staff for TRW Defense & Space Systems Group, Redondo Beach, Calif. . . . **Edward Gordon** holds the position of senior development programmer at Decision Data Computer Corporation, Horsham, Pa. . . . **Gordon Gover** works as a senior development chemist at Clairol in Stamford, Conn. . . . **Michael Graham** has been named corporate director of compensation and benefits at Bausch & Lomb, Inc. Formerly, he was with Albany International Corp. He holds a degree from RPI. . . . Continuing with Bell Laboratories, **Howard Greene** is now located in Murray Hill, N.J. He has received his MSEE from the Columbia School of Engineering. . . . **Gary Hills**, who has an MSCE from Berkeley, is a cost engineer for Stone & Webster, Wading River, N.Y. . . . **Lawrence Hunter** is with Westinghouse Electric in Baltimore, Md. . . . In March, **Vijay Kirloskar** and his wife, Meena, visited WPI from India. . . . **Michael Kosmo** is employed as a project engineer at Schofield Brothers, Framingham, Mass.

Paul Nordstrom is a principal sanitary engineer for the Rhode Island Department of Environmental Management in Providence. . . . **Stanley Piekos** holds the position of project engineer at Riley Stoker in Worcester. Last year, he received his MSCE from Stevens Institute of Technology in Hoboken, N.J. . . . **Stephen Powlishen** now works for Hewlett-Packard Co. . . . Bechtel Power Corp. employs **Michael Rollett** as a field engineer in San Clemente, Calif. . . . **John Stopa**, who has his JD from BU School of Law, serves as an assistant legal counsel at Orion Research Incorporated, Cambridge, Mass. He is a chess master. . . . **Stephen Williams** is working as an inventory and production control specialist for GE in Ft. Wayne, Ind. He has completed a three-year assignment as a quality control engineer.

1975

Secretary:
James D Aceto, Jr.
70 Sunnyview Dr.
Vernon, CT
06066

Representative
William F. George
27 Old Farm Rd.
Spencer, MA
01562

▶*Married:* **Bruce E. Keith** and **Laura E. Gardosik, '77,** on April 12, 1980, in West Warwick, Rhode Island. Mrs. Keith is a design engineer at Polaroid Corp., Cambridge, Mass. Her husband is with Teradyne Corp., Boston. . . . Capt. **Michael L. Parker** and Brenda S. Harkins on December 29, 1979 in Fort Knox, Kentucky. Currently, they are residing in Killeen, Texas. Mike is stationed at Ft. Hood as a cavalry squadron maintenance officer. . . . **David T. Shopis** and Patricia A. O'Sullivan on March 15, 1980 in Windsor, Connecticut. Mrs. Shopis, a graduate of Hartford Hospital School of Allied Health, is a nurse at Hartford Hospital. Her husband is with F.I.P. Corporation in Farmington, Conn., where he is construction manager.

▶*Born:* to Mr. and Mrs. **David H. Kingsbury** their third child, first son, David Joseph, on March 11, 1980. . . . to Capt. and Mrs. **Douglas Sargent** a daughter, Amber Marie, on September 8, 1979. Sargent, who was promoted in December, is still serving in Portland, Me., with the U.S. Army.

Dr. **Andrew Armstrong** has received his Doctor of Optometry degree from the New England College of Optometry. He has a BS and MS in mechanical engineering from WPI. While at optometry college, he had extensive clinical experience at the Boston Eye Clinic and at Dorchester House Multi-Service Center. He had a three-month residency at Rutland (Mass.) State Hospital. At a pre-graduation awards dinner, he received the Bausch and Lomb contact lens award, which is given to the graduate displaying the highest proficiency in the field of contact lenses.

Clifford Ashton has been promoted to engineer at Northeast Utilities (NU). Last year, he joined NU as associate engineer in the generation engineering department. He belongs to the ASME, Pi Tau Sigma, and Sigma Beta Pi. . . . **John Balint** serves as a sales engineer for GE in Oakland, Calif. . . . **John Batt**, a staff engineer in the Customer Service Group of Union Carbide, has been transferred to the Linde Division at the Distribution Technical Center in Springfield, N.J. . . . **Michael Blaszczak,** an engineering recruiter for General DataComm Ind., Inc., is headquartered in Danbury, Conn. . . . **Erik Brodin** is a project engineer at GM in Framingham, Mass. He holds a master's degree from the University of Rhode Island and an MBA from Western New England College. . . . Still with the Lee Co., **Raymond Cibulskis** is now product manager for the firm in Westbrook, Conn. . . . **Robert Cummings** is employed as a system planning engineer at Central Vermont Public Service Corp., Rutland, Vt. . . . **Mark Deming** serves as a senior planner for the County of Santa Cruz, Calif.

Judy Nitsch Donnellan has been named a registered professional engineer in Massachusetts. She continues as vice president and director of Schofield Brothers, Inc., and as manager of the Attleboro branch office, Freeman Engineering Company. . . . **Robert Fair** holds the post of project engineer at Connecticut General in Hartford, Conn. . . . **Robert Hart** is employed as an operations researcher for the U.S. Army Communications Research and Development Command in Ft. Monmouth, N.J. . . . **Daniel Lapen** works as a research chemist at Coulter Biomedical, Concord, Mass. He has an MS from UMass. . . . **Ronnie Materniak** has obtained registration as a professional engineer in Delaware. He is being transferred to du Pont's Construction Division at the Richmond (Va.) plant on a two-year rotational assignment. He is working on his MBA "between job transfers." . . . Continuing with the Veterans Administration, **James McKenzie** is presently with the Office of Construction as a resident engineer in Washington, D.C. . . . **Paul Menard** has received his PhD in chemistry from Ohio State University in Columbus.

Laurence Michaels is now a senior systems programmer-analyst at Applied Data Research, Inc., Princeton, N.J. Previously, he was with Whitlow Computer Systems in Englewood Cliffs. . . . **Ralph Miller** works as a nuclear equipment operator at Southern California Edison in Santa Ana. . . . **M. Graham Noll** is with Analogic Corp., Danvers, Mass. . . . **Toby Reitzen** serves as a gas process engineer for Mobil Oil in Chickasha, Okla. . . . **Michael Schultz** is a graduate research assistant at MIT.

1976 REUNION
OCTOBER 3-5

Secretary:
Paula E. Stratouly
1804 Windsor Ridge Dr.t
Westboro, MA
01581

Representative:
Richard P. Predella, Jr
40 Hawthorn Rd.
Braintree, MA
02184

▶*Married:* **Karl S. Johanson** and Miss Shalene Nayar on February 2, 1980, in Bombay, India. The bride attended schools in Bombay, New Delhi, and England. The groom has been a customer support representative for Pratt & Whitney Aircraft since 1976. He was based at Air India from 1977 to 1980, assisting with B-747 operations. This May, he relocated to Garuda Airlines at Jakarta, Indonesia, to assist in their B-747 operations. . . . **John V. Bucci** to Susan K. Dillen on December 29, 1979. The groom was recently promoted to manager of materials at GE Datacom in McAllen, Texas.

▶*Born:* to Mr. and Mrs. **James R. Cullinane** a son, Jason Stephen, on April 16, 1980. Jim is with Grinnell Corp. in Providence, R.I. The family resides in Norfolk, Mass.

Richard Allen works as a project engineer at Dufresne-Henry, Manchester, N.H. He holds an MSCE from the University of Washington. . . . **Charles Bellemer** is a chemist at Janco in Dover, N.H. . . . **Keith Bennett** serves as a project engineer at Air Products & Chemicals in Paulsboro, N.J. He, his wife, Kim, and one child live in Bellmawr. . . . **Charles Bohling** is employed as a computer programmer at Mission Research Corp., Albuquerque, N.M. . . . **Mark Coulson** holds the post of nuclear shift test engineer at General Dynamics-Electric Boat, Groton, Conn. . . . **Richard Crafts** is a process engineer at Occidental Chemical, White Springs, Fla. . . . **Thomas Descoteaux** is with the estimating department at Della Construction Co., Inc., Enfield, Conn. . . . Presently, **Les Erikson** is employed as general manager at Norton Co. in Arden, N.C. He and Carol have three children. . . . **Ed Floyd** serves as a design engineer at Dufresne-Henry in North Springfield, Vt.

Riley Stoker, Worcester, employs **James Galvin** as a construction engineer. He has an MSCE from Stanford. . . . Still with Eastern Utilities Associates Service Corporation, Lincoln, R.I., **Robert Grande** was recently transferred to the system planning section. . . . **John Grenier, Jr.,** works as a programmer II at Norton Co., Worcester. The Greniers have a son, Michael. . . . **Raymond Houle, Jr.,** continues as general manager of Precision Products, the family business located in North Smithfield, R.I. The firm produces calculator keyboard assembly equipment, precision welding fixtures, automatic choke inspection gauges, and was certified to work on the Apollo program. Recently, the company moved

into larger quarters with room for expansion. . . . **Benjamin Jacobs** is a self-employed actor and acting teacher in Portland, Oregon. . . . "B. J." **Johnson** is now associate group manager for Prudential Insurance in Boston. He is chairman of the WPI Homecoming Committee. . . . **Steven Landry** serves as a chemical officer with the U.S.Army in West Germany.

Andrew Marcus writes: "It appears that the WPI plan works. I've been working for the same firm, F. L. Smidth &Co., for three years." Presently, he is assistant contract manager. Earlier, he had been a project engineer, then project manager. His firm, based in Copenhagen, is a manufacturer-designer of Portland cement equipment and plants. "One of the reasons I picked WPI was that there wasn't a language requirement. Because of the fact that most of our plants are in Mexico and South America, I now know Spanish!" . . . **Robert Milk** is director of data processing at Electronic Data Systems, Raleigh, N.C. . . . In February, **William Ruoff** joined Gas Service, Inc., in Nashua, N.H., as a gas distribution engineer.

Craig Self is with Polaroid Corp., Cambridge, Mass. . . . **Thomas Stowe** is a test engineer at Pratt & Whitney Aircraft, East Hartford, Conn. . . . **Lance Sunderlin** holds the position of supervisor of the insulating department at Anaconda Industries in Watkinsville, Ga. . . . Albany International Corp. of Glens Falls, N.Y., employs **Thomas Vaughn** as a sales engineer. He covers New England paper mills in his sales territory and is located in Nashua, N.H. . . . Currently, **David Wolff** works for ASA, Inc., a software house in Southboro, Mass. As a programmer-analyst and project leader, he heads a group of 75 people. . . . Recently, **Neal Wright** was assigned as maintenance officer for the 642d Engineer Equipment Company (CS) at Fort Devens. He is responsible for over 140 pieces of engineer equipment. The 642d Engineer Company has been commanded by two other WPI alumni, **Thomas Beckman, '73**, and **William Baker, '76**. . . . In May, **Brian Young** received his MBA from Widener University, Chester, Pa.

1977

Secretary:
Kathleen Molony
6 Aiken St
Norwalk, CT
06851

Representative
Christopher D. Baker
11 Boston St.
Lawrence, MA
01841

Michael Abrams, who is studying for his MSEE at Vanderbilt University, works as an electronic technician at Northern Telecom in Nashville, Tenn. . . . **Carol Sigel Baran** is with Charles T. Main, Boston. . . . **Jeffrey Baumer** works as a manufacturing engineer at Pratt & Whitney Aircraft in North Berwick, Me. . . . **Brian Belliveau** is employed as a division sales engineer at Westinghouse-Sturtevant Division in Hyde Park, Mass. . . . **Greg Cipriano** is a project engineer at Instrumentation Laboratory, Lexington, Mass.

Leonard Clow, a graduate student at Kansas State University, Manhattan, Kansas, is affiliated with the biochemistry department. . . . **Lawrence Coel** is a sales administrator at Interex Corp., Natick, Mass. . . . When the tall ships visited Boston at the end of May, **Bill Cunningham** was again on hand as he had been in 1976 with his silk-screening business. His temporary business cards read: "Tall Ships Marketing, Boston-crafted silk-screened apparel." Bill says he sold most of his stock before the event was over. . . . **Michael DiMascio** serves as vice president of Briggs Engineering in Norwell, Mass. . . . **Paul Hajec** has accepted a new post as senior transportation planner for the Merrimack Valley Planning Commission in Haverhill, Mass. . . . **Barbara Hatch** is employed as a production engineer at Thiokol/Specialty Chemicals Division, Newell, West Virginia.

1/Lt. **William Lee** is currently a battery commander with the U.S. Army in Europe. Later this summer, he will be located in San Antonio, Texas. . . . **Jerry Melcher** serves as an application engineer at Moore Systems in San Jose, Calif. . . . **Eric Paulson** holds a post as commander with the U.S. Army at Ft. Stewart, Ga. . . . 1/Lt. **Marc Richard**, who recently received his MSEE from MIT, is now with the Joint Tactical Communications Office in Tinton Falls, N.J. . . . **Peter Rudman**, a first lieutenant in the U.S. Army, transferred from the Signal Corps to the Finance Corps in March. He is stationed in Germany. . . . **Andrew Sayles** is with Walsh Construction Company, Darien, Conn.

Mike Sullivan writes: "Finally back in New England after two years in 'Frostbite Falls,' Minn. [Rochester, Minn.]" Presently he is with IBM in Essex Junction, Vt. . . . **Ted Tamburro** serves as a 1/Lt.-ADP officer for U.S. Army Management Systems Support Agency in the Pentagon, Washington, D.C. He and his wife Judy live in Alexandria, Va. . . . **Robert Ware,** who has an MS from Cornell, is a graduate student and research assistant in the chemical engineering department at MIT.

1978

Secretary:
Cynthia Grynick
303 Wolcott Ct.
Waterbury, CT
06705

▶*Married:* **Robert A. Brown III** and Gail M. Beauregard in Gardner, Massachusetts, on April 19, 1980. The bride, a graduate of Bay Path Junior College and Rivier College, teaches at Gardner High School. The bridegroom serves as a design engineer at Harris Corp., Westerly, R.I. . . . **Joseph Maslar** and Wanda Wells on December 21, 1979. The groom is a sales manager at Datametrics, Inc., Wilmington, Mass. . . . **David T. Markey** and Regina A. Carcieri on April 26, 1980 in Providence, Rhode Island. Mrs. Markey attended Rhode Island College and works for Almac's Inc. Her husband is with Sikorsky Aircraft, Stratford, Conn. . . . **Stephen W. Robichaud** and Colette M. LaChance in Gardner, Massachusetts, on November 24, 1979. The groom will finish the GE Manufacturing Management Program in July. He has been serving as a buyer and is now working with solar-wind-nuclear energy. . . . **Alan E. Simakauskas** and June Carroll on October 20, 1979, in Spencer, Massachusetts. The bride, a medical secretary at Cape Cod Hospital, Hyannis, graduated from Becker. Her husband is with Butler Automatic, Inc., Canton, Mass.

▶*Born:* to **Robert** and **Robin Paisner Chapell** their first child, a daughter, Melanie Ann, on April 22, 1980. Chapell is a project engineer at Linenthal Eisenberg Anderson, Inc., Engineers, in Boston.

Anthony Allis holds the post of president of Microwave Systems Engineering Corp., A&J Marketing, and National Idea Development. He is secretary of A. J. Allis Dairy Co.,Inc., and is located in Scarsdale, N.Y. . . . **Paul Avakian** is with NEC Micro-Computer, Wellesley Mass. . . . **Paul Cody** is employed as a field service engineer at Westinghouse Electric Corp. Engineering Service, Framingham, Mass. . . . **Wallace Davis III** is supervisor of environmental sciences for the Washington Public Power Supply System in Richland. . . . **Adrienne Dill** is with Haley & Aldrich, Inc., Cambridge, Mass. . . . **Raymond Dunn** starts his third year at Albany (N.Y.) Medical College this fall. "From then on it's full time till May 1982." . . . **Mladen Eic** serves as technical manager for "Jugoinspekt" in Yugoslavia. . . . **Bryce Granger** now works for Akron Standard as a project engineer. . . . **William Heberling III** is employed as production engineer for Zachary Organs in Parsippany, N.J. Recently, he oversaw the design of a one-man band type of instrument with drums, bass, guitar, and violins.

What handicap?

JOHN PAVAO, '79, has a lot going for him, according to his boss at the Naval Underwater Systems Command (NUSC) in Newport, Rhode Island. Another colleague says, "we'd greatly appreciate having other graduates like John referred to NUSC. They make fine professionals."

Pavao, a computer specialist, has demonstrated proficiency in his profession and devotion to duty on his various job assignments, in spite of what many would consider unsurmountable odds.

John was born blind. Blindness, however, has never deterred him from reaching his goals. Currently he works as a permanent employee deeply involved in developing a computer software program for the Acoustic Range Tracking (ART) system which will be used at AUTEC, the Atlantic Undersea Test and Evaluation Center, located on Andros Island in the Bahamas.

To facilitate his work, John uses a teleprinter that prints Braille; a Braille writer; a telewriter; and a talking calculator. He can read normal print by using an optacon, which uses an electronic system to scan letters and numbers and translate them into impressions he can read with his fingertips.

John, a graduate of Perkins Institute for the Blind, Watertown, Mass., has been interested in computer science for a long time. At WPI he became adept at programming many of the popular computer languages, including FORTRAN, BASIC, COBOL, and microprocessor machine languages.

Following his graduation from WPI, Pavao was interviewed by a number of company recruiters through the Office of Graduate and Career Plans, but he was unable to secure a position because of economic considerations. "I discovered," he explains, "that companies were unwilling to hire me unless I could provide my own Braille terminal. They didn't have Braille terminals available, and I couldn't afford to buy one myself."

Before finally joining the staff at NUSC, where equipment for the handicapped is available, John received a 700-hour temporary appointment which he passed with flying colors. John is very happy with his permanent post at the Sound Laboratory, which was offered to him after the trial period.

"Actually, it was a hobby that eventually led me to NUSC," John reveals. "I enjoy operating ham radios, and several years ago I became friendly with another ham radio enthusiast, Tom Riley, who is my current boss. It was through his efforts that I was able to take advantage of the job opportunity at the laboratory."

Able-bodied, well-trained, and capable, John displays a great deal of self-confidence. His co-workers feel that he has no handicap whatsoever. He routinely walks unassisted from his office in Building 111 to Building 103 for negotiations on computer technology. Every day he rides to and from his job in a carpool from Dighton, Mass., where he lives with his parents.

After hours, his interests are varied and many. He's an avid sports participant and regularly engages in swimming, jogging, bowling, and shooting baskets.

Carl Klein has accepted a new job as production supervisor of switch assembly and molding in the GE Wiring Device Dept., Middletown, R.I. He will attend Harvard Business School this fall. . . . Presently, **Ken Kummins** holds the position of principal engineer for E.D.S. Nuclear at the Commanche Peak Site in Fort Worth, Texas. Also a consulting engineer, he is working in a group that's doing safety analyses on the plants. He expects to be in Texas for a couple of years. E.D.S. Nuclear, a consulting firm, has offices in San Francisco, New York, Atlanta, and Paris. . . . **Scott Lentz** serves as process control engineer at the Foxboro Co. in Chamblee, Ga. . . . **Kathryn Lyga** is a design engineer at CE-KSB Pump Co., Portsmouth, N.H. . . . Advent Corp., Cambridge, Mass., employs **Brian McLane** as a television design engineer. He is involved in the design of economy projection television. . . . **Edward Menard** is a firmware engineer at Qantel Corp., Hayward, Calif.

Stephan Mezak holds the post of computer resources manager at Eaton Corp. in Sunnyvale, Calif. . . . **Richard Ruscito** is employed as a process supervisor at W. R. Grace-Davison Chemical Division, Baltimore, Md. . . . **Philip Scarrell** is a first line supervisor with du Pont in South San Francisco, Calif. . . . **Gregory Smith** works as a sales engineer at F. K. Smith Co.,Inc., Hamden, Conn. . . . **Andrew Tannenbaum** is now an information systems staff member in the Sonar Systems Development Department of Western Electric, Whippany, N.J. . . . **Jeff Toran** is employed by du Pont's R&D facility in Wilmington, Delaware. He just received his master's from WPI. . . . In February, **Bettina Tuttle** transferred from GE in Ohio to GE-Plastics in Pittsfield, Mass., where she is a process engineer. While in Ohio, she coached a YMCA swim team (12 to Nationals). In Pittsfield she teaches handicapped children skills and sports. She is taking night courses for her MBA.

1979

Secretary:
James Manchester
625 Main St.
Reading, MA
01867

Representative.
Donald O. Patten, Jr
27 French St.
Hingham, MA
02043

▶*Married:* **A. Michael Blaney** and Marlene M. Livingstone in Southboro, Massachusetts on April 12, 1980. The bride attended Aquinas Junior College. . . . **Anthony Doornweerd** and Elizabeth A. Rivers on May 16, 1980, in Branford, Connecticut. Mrs. Doornweerd graduated from Becker.

Edward Anderson, Jr., has joined Megakit Corp., Santa Clara, Calif. . . . **Rick Bonci** serves as a process engineer at Monsanto Textiles Co., Decatur, Alabama. . . . **Stephen Caputo** is taking a GE technical program in Auburn, N.Y. . . . **Douglas Clark** works as a design engineer at Pratt & Whitney Aircraft, East Hartford, Conn. . . . Dewey & Almy Chemical Division of W. R. Grace & Co., Lexington, Mass., has employed **John Craffey** as a process engineer in new product development. . . . **Thomas Dinan, Jr.,** is at the University of Illinois at Urbana-Champaign. He belongs to the Electrochemical Society and the American Institute of Chemical Engineers. . . . **John Etrie** serves as a purchasing agent at Coghlin Electric Co., Worcester. . . . **Mary Farren** was promoted to associate engineer at IBM.

Ken Fast is employed as a junior engineer at Engineering Incorporated in Hampton, Va. . . . **Michael Gabriella** works as a water quality control engineer for the Division of Water Pollution Control in Westboro, Mass. He is a member of the chorus and quartet of the Society for Preservation of Barbershop Quartet Singing in America. . . . **Steven Gottschalk** has accepted a post as associate engineer at Perkin-Elmer Optical Technology Division in Danbury, Conn. . . . **Robert Hart** has joined the sales office in Trane Company's Commercial Air Conditioning Division, Los Angeles. Recently, he completed the Trane Graduate Engineer Training Program, a six-month course concentrating on specialized heat transfer theory and practice. Trane is a leading manufacturer of air conditioning, refrigeration, and heat transfer equipment for commercial, residential, industrial, transport and special process applications and has facilities worldwide.

William Herman serves as a systems analyst at Arthur Andersen, Hartford, Conn. . . . **Lorraine Kikuta Hunt** is a quality control engineer at DEC, Westfield, Mass. . . . **Brian Johansson** is employed as a development engineer at Motorola, Inc., Plantation, Fla. . . . **Paul Keary** is a composite structural engineer at Boeing Co., in Washington. . . . **Leonard Kleczynski** is employed as a project engineer at Markem Corp., Keene, N. H. . . . **Peter Kujawski** is a chemical staff officer with the U.S. Army at Ft. Ord, Calif. . . . Procter & Gamble, Mehoopany, Pa., employs **Douglas LaBrecque** as a team manager. . . . **Stephen Lefemine** works as a sales application engineer at Warren Pumps, Warren, Mass. . . . **Lawrence Leduc** serves as a project engineer at Carl Gordon Industries, Worcester. . . . **Sheng Lung Lien** is now with Monsanto in St. Louis, Mo. . . . Presently, **Ian Mair** is employed as a research metallurgist with Lukens Steel Company, Coatesville, Pa.

John Moses is with A. D. Little in Cambridge, Mass. . . . **Peter Mullarkey** holds the post of project engineer at CTL/Thompson, Inc., in Denver, Colo. . . . **Paul Norton** serves as a junior engineer at Gannett-Fleming, Camp Hill, Pa. . . . **John Osborne** is employed as a field sales engineer at GE in Schenectady. . . . **Chris Ratti** (not "Patti" as erroneously printed in the spring issue of the *Journal*) continues as plant supervisor at Engineered Plastics Products, Inc., in Stirling, N.J. . . . **Kenneth Sawyer** holds the post of analytical engineer trainee at Pratt & Whitney Aircraft in East Hartford, Conn. . . . **John Skliutas** is working for his master of engineering in electric power at RPI. . . . Currently, **Timothy Spera** is with Honeywell EOC in Lexington, Mass. . . . **Joseph Spinn** is employed as stability engineer at Pratt & Whitney Aircraft in West Palm Beach, Fla. . . . **Michael Tabaczynski** has accepted a post at Raytheon in Wayland, Mass. . . . Marine 2/Lt. **Gregory VanHouten** recently graduated from Basic School located in the Marine Corps Development and Education Command in Quantico, Va. The school prepares newly commissioned officers for assignment to the Fleet Marine Force and emphasizes the duties and responsibilities of a rifle platoon commander. Training included instruction in land navigation, marksmanship, leadership, and teamwork in the 26-week course. . . . **Felix Vargas** is with CHU Associates in Littleton, Mass. . . . **Douglas West**, an MSEE student at WPI, serves as a teaching assistant in the EE department.

School of Industrial Management

John Greenaway, '54, holds the post of chairman at Peterson Steels, Inc., Avon, Conn. The firm is a division of SKF Steel.

Richard Seymour, '75, has been named production superintendent at New Hampshire Ball Bearings, Inc., Peterborough, N.H. Formerly, he was with Reed and Prince Company in Jaffrey. He has an extensive background in all phases of design, production, and plant engineering, and has a BSME from WPI.

Ronald Butler, 76, was promoted to chief engineer at CPC Engineering Corporation. During his 18 years with the firm, he has served as project engineer, quality control manager, plant engineer, and production manager. He is a graduate of Worcester Junior College, and is on the advisory boards of three vocational high schools: Tantasqua, Worcester Vocational, and WITI. The Sturbridge resident is vice chairman of the American Welding Society and a member of the board of the Tri-Community YMCA, where he serves as chairman of the house committee. He also belongs to the U.S. Coast Guard Auxiliary.

Bay State Abrasives, Westboro (Mass.) has announced the appointment of **Everett Peterson, '79,** to the post of manager of manufacturing control. He graduated from Northeastern. With Bay State since 1965, he most recently served as senior industrial engineer. He is a past president of the American Institute of Industrial Engineering, Worcester chapter.

Natural Science Program

Robert Kelley, '60, an associate professor in the natural science-physics department at Worcester State College, was recently named the first "Science Educator of the Year" by the Massachusetts Association of Science Teachers. The new award is designed "to recognize persons making outstanding contributions to science education in the Commonwealth of Massachusetts." Kelley earned his EdM in science education at Boston University. He was chairman of the founding committee of the Massachusetts Association of Science Supervisors and has been president of the Association, and chairman of the 1977 eastern convention of the National Science Teachers Association. He has received awards for outstanding work from the M.A.S.S., the Civil Air Patrol, and the National Aeronautics and Space Administration.

Jim O'Brien, '60, is currently a professor at Boston State College, Boston.

Dr. **Jerry Jasinski, '68,** presented a Citizen's Workshop on Energy and the Environment on May 7th in Newport, N.H. The highlight of the presentation was the use of the energy-environment simulator, a specially designed electronic computer which enables workshop participants to play the roles of energy decision makers. In the game, they allocate the world's energy resources to meet growing demands. The program was given under the auspices of DOE. Dr. Jasinski is assistant professor of chemistry at Keene State College. He belongs to the ACS, Sigma Xi, and the American Association for the Advancement of Science.

Ernest DiMicco, '74, was chosen by the National Association of Student Councils to present a workshop at its national convention in Arizona in June. DiMicco is a science teacher, and adviser to the Coventry (R.I.) High School Student Council. A graduate of Providence College, he holds a master's from WPI and has studied at Penn State and URI. Under his leadership, the Coventry High School Student Council has become one of the most active and respected in the country.

Michael O'Keefe, '74, is senior associate at Management & Advisory Services, Burlington, Mass. He, his wife, Donna, and one child live in Pelham, N.H.

How much is it worth? Well, I don't know, but I know someone who does . . . .

HE'S APPRAISED EVERYTHING from the Empire State Building to the Golden Gate Bridge.

Lee P. Hackett, '61, president of American Appraisal Co., the world's biggest tangible and intangible property appraiser, seems to have touched all bases. "Along the way, we've appraised professional baseball, football, and hockey teams." Hackett's firm has also evaluated the worth of the bankrupt Penn Central Railroad, an ITT space communications satellite, the Alaska pipeline, steel mills in South America, and the Lincoln convertible limousine in which President John F. Kennedy was riding when he was assassinated in 1963.

"As a rule, we stay away from art objects and private residences," Hackett continues, "but we have done work for 60 percent of the firms on the Fortune 500 list."

Hackett, a Vermont native, joined the Milwaukee-based firm after receiving his BS in electrical engineering from WPI and serving as a lieutenant in the Army Signal Corps. In 1974, he received his MBA from the University of Chicago, and he now discusses investment tax credits and component depreciation as easily as watts and volts. And after years of traveling around the world, appraising everything from sole proprietorships to huge copper mines, he has scarcely a trace of his New England accent left.

His Yankee trader savvy, however, is still intact. Hackett doesn't allow American Appraisal to rest on its laurels. He continues to beat the bushes around the world looking for ways to make a buck. He is forever coming up with new ideas to better serve his clients, while still maintaining the image of an easy-going, "plain-folks" individual. Easy-going or not, Lee Hackett is not one to come out second-best in a business deal. For example, not long ago he charged the State of New York $800,000 for appraising the state university system, the largest in the country.

"We put a value on every desk, building, and piece of land in the system," he says. The company also offered the state a continuing update service so that it could make accurate budget forecasts. "That was my biggest assignment. It took two years to complete."

American Appraisal is a subsidiary of American Appraisal Associates, Inc. It accounted for half the parent company's revenues last

year. Hackett predicts that his firm will be earning $40 million annually by 1984. A Milwaukee financial analyst familiar with American Appraisal agrees with that forecast. He says the company does a good job of selling its services: "It's a people company. It doesn't make anything, but it thrives on expertise."

American Appraisal is a well-established business, which originated in Milwaukee purely by accident. "Back in 1896," Hackett explains, "the founders left Minneapolis to go to Chicago, where they planned to set up a company staffed by experts who could make impartial property valuations that could stand up in court. They traveled by night train and mistakenly got off at Milwaukee instead of Chicago. Unruffled, they decided to set up shop where they were. The Joseph Schlitz Brewing Company was their first customer."

Soon the company was recognized as a leading expert in the areas of insurance, mergers, and property tax matters. Today, American Appraisal has 250 appraisers and 500 staff members, including salesmen, engineers, financial analysts, economists, and other specialists skilled in the collection and interpretation of knowledge. Data flows through the computer system 24 hours a day from the field force, from information services, and from staff calculations servicing tens of thousands of clients.

Hackett notes that his company spends $1 million a year on subscriptions to publications and other data collection services, plus another $1.5 million on travel expenses, all in the name of adding services. "Our aim is to provide the client with a complete package of information and assistance that will tell him how much he is worth, how well he is doing, and how much he can improve his situation."

Lee Hackett has spent nearly half his 40 years with American Appraisal. He has helped to make it prosper, and he hopes to lead it to greater heights in the future. Although business keeps him busy, he does manage to find time to do other things. For example, he serves on the enrollment committee at Milwaukee School of Engineering; he's finance director for the Milwaukee Tennis Classic; and he's a member of the University Club and the Association for Corporate Growth. During the summer he escapes to the Arctic, fishing, and in the winter he can be found skiing in Colorado and Utah.

George H. Ryan, '08, a retired head chemist for White & Bagley Co., Worcester, died on May 11, 1980 in Millbury, Massachusetts. He was 93 years old.

A Millbury native, he lived there all of his life with the exception of 16 years (1908-1924) which he spent in Montana as a sheep rancher. He graduated from Worcester Academy in 1904. In 1908 he graduated as a chemist from WPI. For 34 years he held the post of head chemist at White & Bagley Co. from which he retired in 1956.

He belonged to Sigma Xi, the Millbury Baptist Church, and was a 50-year member of the American Chemical Society. He was a past president of the Worcester chapter of the ACS and a life member of the Meridian Lodge of Masons in Cascade, Montana.

Winfield S. Jewell, Jr., '15, of Grosse Pointe, Michigan, died on March 24, 1980.

He was born on August 29, 1893 in Indianapolis, Ind. In 1915 he received his BSEE. During his career he was with GE, Studebaker, Jewell-Bassett-Jewell, Ready Power Co., Jewel Motors, and White-Haines Optical. For a number of years he was self-employed and associated with Maxon, Inc., as a real estate agent.

Mr. Jewell belonged to Phi Gamma Delta and the Senior Men's Club of Grosse Pointe. He was a veteran of World War I. At one time he was president of the Detroit chapter of the Alumni Association.

John P. Comstock, '16, internationally known naval architect, died of a heart attack in Newport News, Virginia, on January 29, 1980. He was 85.

The former chief naval architect at Newport News Shipbuilding, he was honored in 1960 by the National Society of Naval Architects and Marine Engineers for notable achievement in his field throughout his career.

He was a life member of the Society, belonged to Sigma Xi, and was also a life member of the Royal Institution of Naval Architects, United Kingdom, and a life member and past president of the Engineers Club of the Virginia Peninsula. He published over 70 technical papers in the naval architecture field.

In 1916, he received his BSCE from WPI. In 1919, he earned a BS in naval architecture from MIT. Following graduation, he was employed at the old Cramp's Shipyard until 1927. Later, he was with the Marine Engineering Corporation, and the New York Shipbuilding Corporation in Camden, N.J. In 1929, he became associated with the naval architectural firm of Theodore E. Ferris, New York City. He joined the well known Newport News Shipbuilding and Dry Dock Company in 1931, starting out as a draftsman and retiring as naval architect in 1960.

Mr. Comstock helped with the development of the towing tank at Newport News, and channeled its activities into the most productive fields. His colleagues have said of him, "His contributions to naval architecture on a worldwide basis have been magnificent."

Since his retirement in 1960, he had been a lecturer at the Mariners' Museum and a reading instructor with the Peninsula Literacy Council. For many years, he was a ruling elder in the First Presbyterian Church of Newport, and more recently a member of the Hidenwood Presbyterian Church. He was born on Jan. 12, 1895 in Waterford, Conn.

Frank J. Murphy, '18, who graduated from WPI as a mechanical engineer, died on February 26, 1980.

Chester A. A. Peterson, '18, died in Brockton (Mass.) Hospital on March 1, 1980, following a long illness.

He was born on Sept. 12, 1896, in Brockton, and later studied civil engineering at WPI. During his lifetime he had been principal at Vanceboro (Me.) High School, and had also been employed by the Maine Central Railroad; the city engineer's office in Quincy, Mass.; and the Town of Stoughton (town engineer). Prior to his retirement in 1961, he was the home office representative of the Prudential Life Insurance Co. for 30 years.

Mr. Peterson belonged to Sigma Phi Epsilon. He was a member of the Congregational Church of North Easton, where he was editor of the church paper, "Tidings." A former deacon, he was a past president of the church Friendship Club.

Ralph F. Tenney, '18, passed away in Summit, New Jersey on March 16, 1980.

A native of Leominster, Mass., he was born on March 12, 1897. In 1918 he received a BS in chemistry from WPI, and in 1920, his professional degree in chemical engineering. He belonged to Sigma Xi and Tau Beta Pi.

After serving as a private in the Chemical Warfare Service of the U.S. Army, he briefly joined MIT as a chemical engineering instructor. He was then a works chemist for Worcester Gas Light Co., and a gas production manager for the Long Island Lighting Co. From 1947 to 1953, he was chief of the operating section, coal gasification and gas synthesis, at a coal-to-oil demonstration plant for the U.S. government. From 1953 until his retirement in 1964, he was a chemical engineer at a government anthracite experiment center.

Mr. Tenney belonged to the American Gas Association and the Masons. He was the brother of **Harry Tenney,** '20.

Rear Admiral **Richard S. Morse,** U.S.N. (retired), **'19,** of Sea Ranch, California, died on December 2, 1979, at the age of 82.

He was born on Feb. 22, 1897, in Marlboro, Mass. After attending WPI, he entered the U.S. Naval Academy from which he graduated in 1920. He spent his entire career in the Navy, starting out as a midshipman and retiring in 1947 as a rear admiral. From 1948 to 1965 he served as secretary and assistant treasurer of the Argonaut Insurance Co.

Admiral Morse received the Defense Ribbon, one star, in World War I and World War II, and he was cited for his service in the 1919 Haitian campaign and the Asiatic Pacific campaign. He received the Legion of Merit in the invasion of southern France and the Bronze Star in the Iwo Jima and Okinawa campaigns.

He belonged to Phi Gamma Delta and the Masons.

Homer E. Stevens, '20, of Augusta, Georgia, died on April 23, 1979.

For many years he was with the Worcester Fire Department, which he served as captain. He was born in Worcester on Dec. 26, 1896, and later became a member of the Class of 1920.

Prior to joining the Fire Department, he worked for Savage Arms Corp., Sharon, Pa., and Crompton & Knowles, Worcester.

Carroll A. Huntington, '21, a founder of and a partner in Huntington, Goodnow, Connors, Inc., died at his home in Wellesley, Massachusetts, on March 31, 1980. He had been incapacitated from a stroke suffered ten years ago. He was 81.

In 1945 he helped establish his insurance brokerage firm in Boston. In 1973, the offices were moved to Wellesley. The company specializes in commercial property coverage. Prior to founding the company, he was a salesman-engineer for Improved Risk Mutuals of Boston.

A member of the Naval Reserve in World War I, Mr. Huntington also belonged to Phi Sigma Kappa, the Masons, and the 76 Club of Boston. He was born in Barre, Vt., on Sept. 1, 1898. In 1921 he graduated as a mechanical engineer.

Luther C. Small, '22, a former member of the Worcester Housing Authority, died March 3, 1980 in Hyannis, Massachusetts.

He was with the Worcester Housing Authority (WHA) as executive director for public housing and management from 1954 until he retired in 1970 and moved to Cape Cod. As executive director, he was responsible for the maintenance, management, and budgets for over 200 buildings run by the WHA. He was also concerned with the construction and renovation of buildings.

Prior to his WHA appointment, Mr. Small had served as clerk of the works in the restoration of Great Brook Valley and Curtis Apartments which were heavily damaged by the 1953 tornado. Earlier posts had been with R. L. Whipple Co. and Fiske-Carter Construction Co., Worcester.

Mr. Small, a member of the Class of 1922, was born on Dec. 8, 1900 in Westbrook, Me. He graduated from Lee Institute, Boston, where he studied to be a licensed, registered and bonded real estate broker. He was a registered civil engineer. During World War II, he was a lieutenant commander with the 56th Battalion of the Seabees, and formed the first Seabee unit in Massachusetts.

He was a 50-year Mason, and belonged to the Congregational Church, the Massachusetts Retired State, County, and Municipal Employees Association, the AARP, and the American Legion.

Kenneth E. Hapgood, '23, retired director of power and design with the Tennessee Valley Authority, died in a rest home in Chattanooga, Tennessee, on January 9, 1980.

He was born in Hudson, Mass., on March 31, 1899. In 1923 he graduated as an electrical engineer from WPI. During his lifetime, he was with GE, Allied Engineers, and the Tennessee Valley Authority. While with the TVA, he made a number of business trips to Europe and Taiwan. In 1964, he was appointed to the Federal Power Commission.

A fellow of IEEE, Mr. Hapgood also belonged to CIGRE (the Conference International des Grandes Reseaux Electrique) and NSPE. He was a registered engineer in Tennessee, and a member of the Chattanooga Engineers Club and the Congregational Church. He had been listed in "Who's Who in Engineering" and "Who's Who in America." At one time he served as president of the Schenectady chapter of the Alumni Association.

Edward B. Johnson, '23, of Garden City, New York, passed away recently.

A native of Wethersfield, Conn., he was born on Aug. 16, 1899. He graduated in 1923 as a civil engineer. From 1925 to 1927 he was with Western Union. In 1927, he joined Franklin Society Federal Savings and Loan Association, and retired as assistant vice president in 1964. He belonged to Theta Chi.

Richard L. Kimball, '24, of Ocala, Florida, formerly with Gibbs & Hill, Inc., died on January 10, 1980. He was 77 years old.

Following his graduation as an electrical engineer, Mr. Kimball was an employee of Westinghouse Electric & Mfg. Co. for ten years. For the next three years he worked for the Federal Power Commission. He then joined Gibbs & Hill, Inc., New York City, from which he later retired as chief systems engineer.

He was a professional engineer and a member of AIEE, the American Railway Engineering Association, and ASME, as well as CIGRE (the Conference International des Grandes Reseaux Electrique). He served on the Elmer A. Perry Board of Awards.

Mr. Kimball was born on March 8, 1902 in Springfield, Mass. He was a member of Lambda Chi Alpha, Tau Beta Pi, and Sigma Xi. His grandfather was Alonzo Kimball (deceased), an early WPI faculty member who planned the interior of the magnetic laboratory (Skull Tomb); designed the WPI seal; and founded the Electrical Engineering Department.

Thomas D. Perry, '24, retired mechanical engineer for Atlas Design Co., passed away on February 12, 1980 in Holyoke, Massachusetts.

He was born on Dec. 17, 1902 in Chicopee, Mass., and was a member of the Class of 1924. He belonged to Sigma Alpha Epsilon, the Massachusetts Society of Professional Engineers and Engineering Societies of New England. Other affiliations were with Associated Engineering Co. and United Engineering Co., both of Springfield, and with A.G. Spaulding & Bros. of Chicopee.

Waldo E. Tillinghast, '24, of Brooklyn, Connecticut, died recently.

He belonged to Sigma Alpha Epsilon. A member of the Class of 1924, he later became a funeral director in Moosup, Conn., and then a partner in F.W. Tillinghast Sons in Danielson, Conn.

Arthur R. Brown, '26, of Sun City, California, is deceased.

He was born in Gardner, Mass., on July 25, 1904. In 1926, he received his BSEE from WPI, and in 1928, his professional degree. For many years, he was a senior engineer at Westinghouse Electric Corp., Columbus, Ohio.

Mr. Brown was a registered professional engineer in Massachusetts. He belonged to the Franklin County Chapter of the Ohio Society of Professional Engineers.

Salvatore F. Marino, '28, WPI senior class president and business manager of the first *Peddler,* died on February 23, 1980 in Bristol, Connecticut. He was 77.

He was born in Plainville, Conn., on June 15, 1902, and received his BSME in 1928. Before entering WPI in 1924, he was a draftsman at Marlin-Rockwell in Plainville. After graduation, he worked in New York and Boston on the design and installation of steam power plant equipment. From 1935 to 1957, he was with the New Departure Division of GMC of Bristol, where he became chief product engineer and was granted several patents. From 1957 until his retirement in 1965, he was senior application engineer for the Fafnir Bearing Company of New Britain, Conn.

Mr. Marino had been a Republican selectman in Plainville, had belonged to St. Joseph's Church, and was an honorary life member of the Knights of Columbus. He also belonged to Tau Beta Pi. Interested in music, he started playing the organ and the piano at an early age. He sang in several choral groups and glee clubs in Connecticut. Besides traveling extensively with his wife, Helen, he found time to compile a family tree and to write a family history dating back to 1800.

Joseph E. Totas, '31, a retired industrial engineer from the former Worcester Works, died on March 13, 1980 in St. Vincent Hospital, Worcester, at the age of 71.

With Worcester Works, U.S. Steel, for over 30 years, he retired when the company closed. He was born on Jan. 11, 1909 in Worcester, and was a member of the Class of 1931.

Mr. Totas was a registered professional engineer and land surveyor in Massachusetts. He was a member of the Greendale Retired Men's Club, Lithuanian Naturalization and Social Club, and St. Joan of Arc parish and its Goodtimers Club.

Curtis A. Hedler, '34, of Norwich, Connecticut, passed away recently.

He was a former assistant to the superintendent of production operations at the Northeast Utilities Service Company in Berlin. Also, during his career, he was assistant plant superintendent for Connecticut Light and Power in Uncasville, Conn., and former plant superintendent for the utility at the Montville generating station.

A member of the Society of Professional Engineers, Mr. Hedler's other affiliations were with Sigma Phi Epsilon, the Masons, and the Boy Scouts. He had served as a WPI class agent. He was born on May 16, 1911 in Taftville, Conn. In 1934 he received his BSEE from WPI.

Robert B. Keith, '38, who retired eight years ago from U.S. Steel Corp., died in Key West, Florida, on February 5, 1980.

He was born in Quincy, Mass., on Nov. 22, 1915, and later graduated as an electrical engineer. He was associated with American Steel and Wire and U.S. Steel during his entire career. In 1972, he retired as an industrial engineer.

Mr. Keith was a registered professional engineer in Ohio. Active with the Boy Scouts, he had also served as treasurer of the Cleveland chapter of the Alumni Association.

Dr. **Roland W. Ure, Jr., '46,** was killed in a light plane crash in Utah on January 24, 1980. He was 54 years old.

After studying at WPI, he received his BS from the University of Michigan, his MS from the California Institute of Technology, and his PhD from the University of Chicago. For nearly twenty years, he was a physicist at Westinghouse. In 1969, he became a professor of electrical engineering, materials science, and engineering at the University of Utah, a post he held at the time of his death.

Dr. Ure was an authority on thermalelectricity. He played a key role in establishing the Hedco Micro Electronic Laboratory in the College of Engineering at the University of Utah. He had served as editor of "Thermalelectric Devices, Energy Conversion."

He belonged to Lambda Chi Alpha, Sigma Xi, Phi Kappa Phi, Tau Beta Pi, and IEEE (senior member). Other affiliations were with the American Physical Society and the American Association for the Advancement of Science.

A native of New York City, Dr. Ure was born on June 22, 1925. He held two patents, and was the author of numerous technical and scientific papers, as well as a textbook on thermalelectricity.

During World War II, Dr. Ure was with the Naval Ordnance Laboratory. He was active with the Cooperative Christian Camping Group for which he led numerous backpacking and four-wheel drive trips. He belonged to the United Church of Christ, and served as president of the Hercules Fliers.

Bernard Siegel, '48, of Ipswich, Massachusetts, died on March 4, 1980.

He was born on May 12, 1926, in Brooklyn, N.Y. In 1948, he graduated as a mechanical engineer from WPI and received his MSME from Columbia in 1949. For many years he was with General Electric in Lynn, Mass. He was a member of AEPi, ASME, and ASNE.

James D. Wilson, '49, a former chairman of the Board of Selectmen in Andover, Massachusetts, died on February 19, 1980, at Lawrence General Hospital following a short illness.

Born in Worcester on April 24, 1920, he later became a student at WPI. In 1949 he graduated with his BSME. For a number of years he worked for Laird deVou, Inc., of Cambridge, which he served as salesman, treasurer-clerk, and engineering consultant.

A registered professional engineer, he was past president of the Merrimac Valley Society of Manufacturing Engineers. He was a Navy veteran of World War II, and he was active with the Episcopal Church, the March of Dimes, and the Boy Scouts. He belonged to the Masons, the American Society of Tool and Manufacturing Engineer, and Phi Gamma Delta.

Richard C. Gillette, '52, president of Star Datacom, Inc., McLean, Virginia, recently passed away.

He graduated as an electrical engineer in 1952, and then received his MA from Trinity College. Among his employers over the years, were Aries Corp., U.S. Industries, Lewis Dobrow & Lamb, Wilson, Haight & Welch, Inc., the Bristol Co., United Aircraft Corp., Motorola, and Telecheck.

A member of the American Economic Association, he also belonged to the Association of Industrial Advertisers, Phi Kappa Theta, and Pi Delta Epsilon. He was a former president of the Washington (D.C.) chapter of the Alumni Association.

Mr. Gillette served as an ensign in the U.S. Navy from 1952 to 1954. He was associated with the U.S. Naval Institute, the U.S. Navy League, the American Platform Association, and the National Yacht Club. He was named to "Who's Who in the South and Southeast."

Francis G. Scarbeau, SIM '63, passed away in St. Vincent Hospital, Worcester, at the age of 53.

He was comptroller at NYPRO, Inc. in Clinton, Mass. Earlier, he had been assistant controller at Riley Stoker, which he joined as an accountant in 1953. In 1956 he was named accounting supervisor and in 1957, accounting manager.

Mr. Scarbeau was a native of Worcester, and graduated from New England School of Accounting.

Raffi H. Hollisian, '77, died of heart failure in Boulder, Colorado, on March 1, 1980.

After WPI, he went to the University of Colorado, where he was studying mathematics and history. Last summer he toured several foreign countries including Armenia, which enriched his strong attachments to his Armenian heritage.

LORA T BRUECK
DUDLEY RD
OXFORD MA 01540

HOMECOMING

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HOMECOMING?

Fall 1980

WPI journal

Trustee petitions now being requested

Each year, the WPI Alumni Association has the opportunity to nominate three alumni to serve as Alumni Term Members of the WPI Board of Trustees. Paul W. Bayliss, '60, of Barrington, Ill., chairman of the Alumni Association's Trustee Search Committee, has recently announced that his committee is now receiving petitions for consideration and nomination for 8-year terms beginning in July 1981. Alumni may submit petitions on or before December 1, 1980, and they should be mailed to Mr. Bayliss c/o the WPI Alumni Office, Boynton Hall, Institute Road, Worcester, Mass. 01609. Questions regarding procedures for the formal submission of proposals should be directed to Stephen J. Hebert, '66. alumni secretary-treasurer at WPI (617-753-1411).

Of the three terms concluding in 1981, only one incumbent is seeking renomination. Thus at least two more alumni must be proposed for the ballot which will be voted on by the WPI Alumni Council on March 14, 1981. The incumbent is Walter J. Bank, '46, of Bethesda, Md., who is marketing manager of Syscon Corporation of America, in Washington, D.C.

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March 18, 1981	March 25, 1981	New York (JFK)	$699.00 + 15% ($104.85) = $803.85

NOTE: When registering less than 60 days prior to departure, full payment is required to reserve seat
Enclosed please find $_____ as deposit for_____number of persons ($150.00 per person).
Enclosed please find $_____ as full payment for_____number of persons.
Please charge my ☐ deposit ☐ full payment to: MASTERCHARGE VISA.
Account # ☐☐☐☐-☐☐☐☐-☐☐☐☐☐☐☐☐-☐ Expiration date: ☐☐-☐☐
Signature: _____
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Departure Date: _____ Departure City: _____
I am reserving _____number of seats (☐ Smoking ☐ Non-Smoking).
If more than one couple, attach a separate list with complete information as below.
FULL NAME _____ (PLEASE PRINT) STREET _____
CITY _____ STATE _____ ZIP _____
TEL.NO.HOME (_____) TEL.NO.OFFICE (_____)
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PLEASE RETURN TO: Stephen J. Hebert
Alumni Office
Worcester Polytechnic Institute
Worcester, Massachusetts 01609

FOR INFORMATION OR RESERVATIONS CALL TOLL-FREE:
617-753-1411 Alumni Office
800-952-7477 Hawaii Department
Weekdays 8:30 a.m. to 9:00 p.m.(EST)
Or Saturday 9:00 a.m. to 3:00 p.m.(EST)

Attention small businesses!

The Alumni Association recently received a request from the Department of Defense for names and addresses of alumni involved in small, high-technology businesses. Rather than attempt to define those alumni, and in line with our policy of not supplying addresses of alumni to those outside the WPI community, we are passing along the request here in the *Journal*.

The Office of the Under Secretary of Defense for Research and Engineering will be announcing within the next few months a new program to increase the nation's innovative research and development capabilities. To do this, we must increase the participation of small, U.S., high-technology businesses in DOD research, development, test and evaluation efforts. The program will emphasize simplified proposal preparation and will encourage innovative approaches to high-technology national defense needs.

If your firm is interested in receiving future mailings of information about this program, please write to:

Mr. Hal C. Felscher
Director, Small Business & Economic Utilization Policy Office
Under Secretary of Defense for Research ar Engineering
Room 2A 340
The Pentagon
Washington, D.C. 20301

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Editor:
H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Designer: H. Russell Kay

Typesetting: County Photo Compositing, Inc., Jefferson, Mass., and Davis Press, Inc., Worcester, Mass.

Printing: Davis Press, Inc., Worcester, Mass.

Alumni Publications Committee: Donald E. Ross, '54, chairman; Robert C. Gosling, '68; Sidney Madwed, '49; Samuel W. Mencow, '37; Kathleen Molony, '77; Stanley P. Negus, Jr., '54.

Address all correspondence to the Editor, *The WPI Journal*, Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

The WPI Journal is published for the WPI Alumni Association by Worcester Polytechnic Institute. Copyright © 1980 by Worcester Polytechnic Institute. All rights reserved.

The WPI Journal (USPS ISSN no. 0148-6128) is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second Class postage paid at Worcester, Massachusetts.

WPI ALUMNI ASSOCIATION

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Fall Sports:

Off to a rousing start!

by Mark Mandel
WPI Sports Information Director

If the WPI sports year continues as it has in the first half of the fall season, it will be the most successful in many, many years.

The **football** team's 3-1 record marks its best start since 1968, when the Engineers went 5-2. WPI opened the season with a loss, 23-6 to Norwich, but rebounded and won the next three games: 14-0 over Coast Guard, 7-5 over Colby, and 37-0 over Western Connecticut State College before a cheering Homecoming crowd of alumni and students.

"We are pleased with our efforts during the first half of the season," said head coach Bob Weiss. "But we would sure like to play that first game over again!"

As the scores indicate, the Engineers have won on the strength of the defense. After giving up all 23 points to Norwich in the first half of that game, the defense limited its opponents to just 5 points in the next three and one-half games.

Offensively, a switch that has moved tri-captain Bob Montagna to halfback and freshman Mark Lefebvre to quarterback has been quite effective. But the bulk of the offensive load has fallen on the shoulders of sophomore halfback Jim Leonardo . . . and he has responded. Jim leads New England small colleges in scoring (5 TDs) and won the prestigious Gold Helmet Award (given by the New England Football Writer's Association to the most outstanding performers in New England college football) for his 4-touchdown performance in WPI's win over Western Connecticut.

"The second half of the season should be a good test for us," continues Coach Weiss. "Bates, RPI, Hamilton, and Lowell—our next opponents—are all formidable teams. However, I feel that we can do well in each and every one of the remaining games. If the spirit and the togetherness that we showed in the last three games continues over the next four, there is no question that this team will produce one of the best records in years."

Unexpectedly, the **soccer** team (4-0-1) is also having one of its better years. Despite losing WPI's third all-time scorer, Leo Kaabi, to graduation, Coach Alan King has brought his team to its highest rankings in WPI history—12th in the country and 2nd in New England.

The offensive punch, supplied by Kaabi last year (17 of WPI's 35 goals), has been provided by midfielder Micky Nallen (3 goals, 4 assists) and forward Tony Pileggi (4 goals). The defense, led by captain Dennis Wysocki and goalie Jim Eilenberger, has lived up to its expectations. The Engineers have given up only three goals in the first five games.

"I'm not yet convinced that this is a great team—we still have the toughest part of the schedule ahead of us," said head coach Alan King. "But we are beginning to play like a team, and I have high hopes for the remainder of the year."

The **women's tennis** team has quietly but quickly taken itself from infancy, just a year ago, to respectability. Under the tutelage of Marcia Kenedey, the Engineers won their first six matches and have a 7-3 record halfway through the schedule.

The key to the early success can be found in the team's depth. The engineer lineup, from top to bottom, is stocked with very capable players. First singles player Lisa Longwell (7-3 record); second singles Debbie Biederman (6-4); and first doubles Cindy Gagnon and Leslie Cornwall (4-2) are the cream of the crop. But everyone plays, everyone contributes, and the result is a very rewarding season.

The **cross-country** team, riddled by graduation, is having a tough go of it. Its 2-5 record should improve as the young team gets further into the season.

The **women's volleyball** team is 1-2 and will play the bulk of its schedule later in the fall.

Shipping Out with the President's Advisory Council

Photographs by Michael A. DiPierro, '68, and Stephen J. Hebert, '66

IT STARTED OUT as a part of a time-worn device used by many colleges to help raise money for the Annual Alumni Fund. It has become something much more valuable and significant for WPI.

In 1972 a special category of giving to the college by alumni and parents was created for the first time: those who had given the Alumni Fund or the Parents Fund $1,000 or more, or who had made a one-time gift of $10,000 or more, were recognized with membership in a newly formed group called the President's Advisory Council.

Now, many colleges have done similar kinds of things to help stimulate such major giving by alumni and parents. Such recognition usually takes the form of a special certificate, or plaque, or some other physical memento, suitably inscribed or engraved. But Thomas J. Denney, vice president for university relations, and Stephen J. Hebert, '66, alumni director, didn't want the PAC to be just another "me-too" program.

"People who make gifts of that magnitude," says Denney, "are showing a very real commitment to WPI and to what we stand for. For us merely to turn around and give them something like an engraved paperweight as a way of saying 'thanks'—well, it just didn't seem to me to be a meaningful enough gesture. Instead, we decided to try and capitalize on the commitment of these donors to WPI by asking them for more than just money.

DiPierro

"We tried to think of a suitable structure, a vehicle with which we could tap the wealth of knowledge and experience these successful individuals had amassed in their careers," Denney continues. "Yet we wanted to do it in a way that wouldn't conflict with the normal day-to-day operations and policy-setting functional areas of the college, which properly rest with the college administration and the Board of Trustees, respectively. And we didn't want to take up too much of the time of these busy and concerned people."

THE END PRODUCT was the President's Advisory Council, a group which would be invited to the campus annually to meet with the president of the college and discuss a specific topic of concern.

To help form the charter group of PAC members, Len White, '41, head of R.H. White Construction Co., Inc., pitched in to head up the recruitment drive. An attractive invitation to membership was prepared and mailed to approximately 80 alumni who were considered prospects for the PAC. In that first year, 38 people joined the group. (Compare this with the 17 people who had contributed at the level of the PAC the year before.) They were invited to campus that winter, for a stimulating discussion with President George Hazzard. The theme of that meeting was the problems facing higher education in the 1970s, including financing college operations, student expenses, and attracting sufficient numbers of students in the face of an imminent decline in the college-age population.

The PAC program was off and running. It was so successful, in both leadership and financial terms, that Denney and Hebert and White wanted to find another way of saying 'thanks' to this generous group of involved and committed alumni. What they decided has evolved into the other main tradition of the PAC, an annual recognition function. It started off simply enough, with a desire to hold a truly elegant dinner, with cuisine and setting appropriate to the stature and prestige of the group.

Barbara Hall, special events coordinator, located a suitable caterer and the evening was staged in the great hall of the Higgins House, which had just recently become a part of the WPI campus.

The annual discussions with the president have continued. Over the years they have touched on student housing, the Football Committee's findings and report, Title IX and equal athletic facilities for women, the greening of the campus, and plans for WPI's physical plant.

The dinners have continued, as well, and they have become a very special annual event. In 1975 someone got the idea of staging a "Federalist" dinner at Old Sturbridge Village, recreating the supper served at George Washington's inauguration. Well, it turned out that the menu had to be altered somewhat, but the combination of the nineteenth-century setting and entertainment, plus the feeling of community created by being with others who cared about the future of WPI, made the day something very special for those PAC members who attended.

The next question became, "How could the PAC follow that kind of act for the next year?" With great difficulty and ingenuity, that's how. For 1976, the group was addressed by a special assistant to the Montreal Olympic Games Committee. In 1979, another dinner was staged at Sturbridge, this one focused around the theme of recreating the 'Junto,' a group of intellectuals founded by Benjamin Franklin, who gathered periodically to imbibe and to solve the world's problems. Franklin, as an inventor and early technologist, seemed a suitable choice for a WPI group, and the group was welcomed by Ben himself (well, actually by an actor performing a one-man show).

In 1979, after heading up the organization for eight years, Len White turned over the reins of the PAC chairmanship to Richard A. Davis, '53, president of Thermos Division, King-Seely Thermos Co. White is currently serving on the Physical Facilities Committee of the WPI Board of Trustees and is corporate chairman of WPI's current capital funds program.

For 1980, the PAC had one of its finest days ever. By now, the group had grown to more than 150 members, and it was getting harder and harder to 'top' the previous year's PAC function. But 1980 happened to be Boston's 350th birthday. As a present to Boston, the Tall Ships—which had so thrilled the city and nation in 1976—returned for a few days' visit to Boston Harbor topped off by a sailing race to Norway.

President Edmund T. Cranch welcomed President's Advisory Council members to some of the best seats in the house, on a specially chartered boat, as the Tall Ships sailed out of the harbor and readied for the start of the race on June 4. Two PAC members flew in from California, one from Washington, and another from his home in the Caribbean, specially for the event.

The editor of the *Journal* happened to be leaving campus late on the afternoon of the 4th, just as the buses were returning from the Tall Ships cruise, so he wandered over to Harrington Auditorium in time to see the group disembark. "In ten years at WPI," he commented, "I have never seen such an excited and enthusiastic crowd. They came out of the buses walking on air, it seemed like. You could tell that they'd had a great day, with the Tall Ships and with each other."

Over the years, the PAC has grown considerably in numbers. And in doing so it has managed to develop a sense of community among its members while successfully avoiding any hint of elitism. As PAC members have come to know one another, as they have candidly shared their opinions at the annual discussions with the president, as they have enjoyed the annual functions, and as they have welcomed newcomers into their midst each year, the PAC has indeed become a vital force within the WPI community.

PAC members come in all sorts. They range in age from the class of 1913 to the class of 1974. They include parents of students and alumni in the classes of '77 through '83. Their numbers include businessmen, engineers, entrepreneurs, contractors, attorneys, and members of the WPI faculty. They live across the continent, from Anaheim to Aruba. They give of themselves—their resources, their knowledge, their commitment, their time, and their love for WPI.

DiPierro

Hebert

DiPierro

Above: On the Tall Ships, people can look mighty small.

Below: And you thought Main Street was crowded . . . .

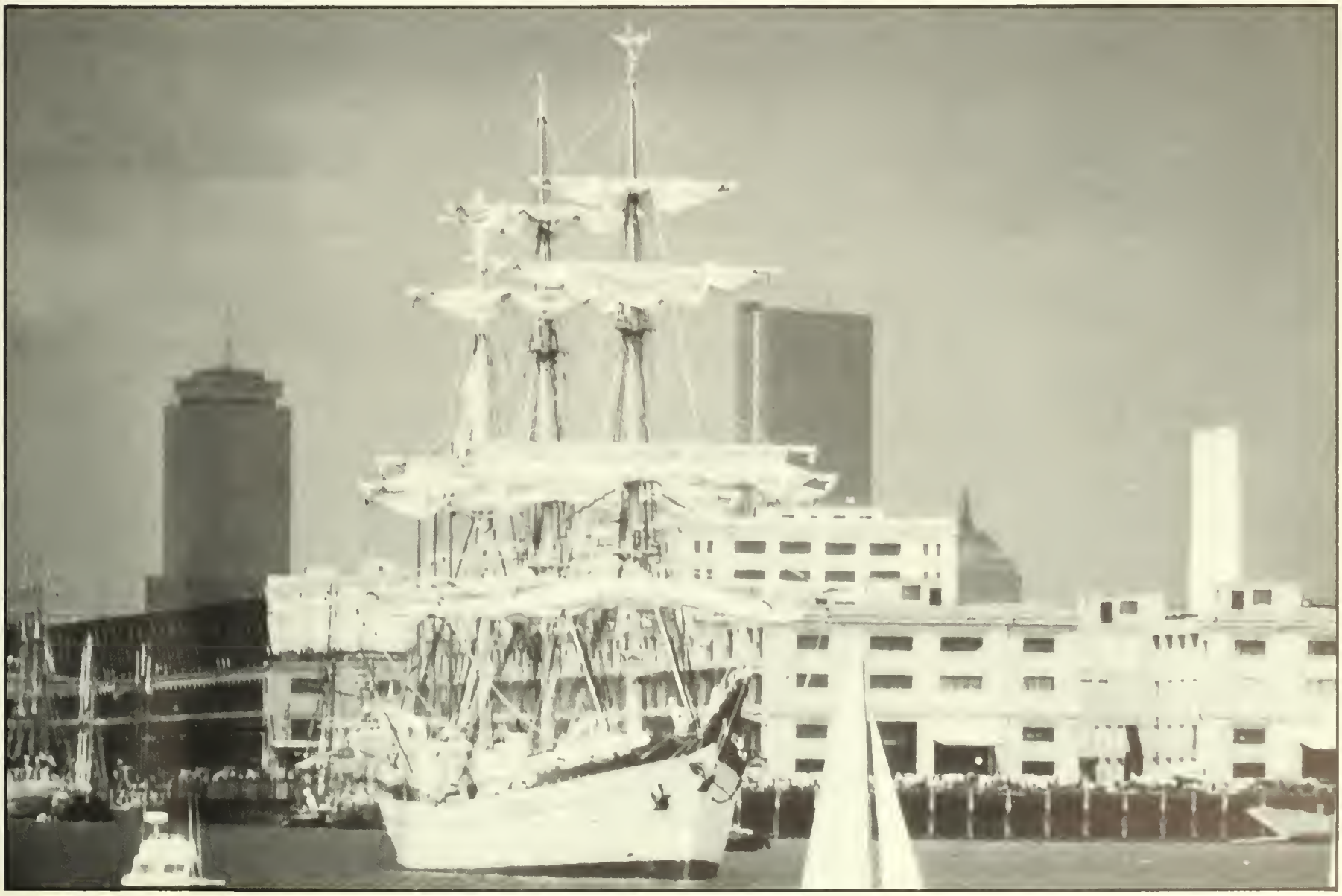
Hebert

DiPierro

Above left: Tom Denney, vice president for university relations, shares a moment with Julius Palley, '46.

Above right: Professor Ray Hagglund, who holds the Kenneth G. Merriam Professorship in Mechanical Engineering, enjoys the day with Bill Steur, '35, who endowed the faculty position in honor of the former head of WPI's Aeromechanics Option program in the 30s and 40s.

Below: The contrast of the 18th and the 20th centuries is evident in Boston Harbor.



DiPierro

BIOMEDICAL ENGINEERING – The human side of technology

As THE OLDEST of the 'non-traditional' fields at WPI, biomedical engineering has been around since the mid–1960s. In that time it has emerged as an innovative yet mature program that cuts across many of the traditional disciplinary boundaries.

The recent death of Richard G. Beschle, associate professor and one of the founders of the program, marks the end of what we might describe as the "first stage" of biomedical engineering education at WPI. It is an appropriate time to take a brief look at where the program has come from and what it is doing today.

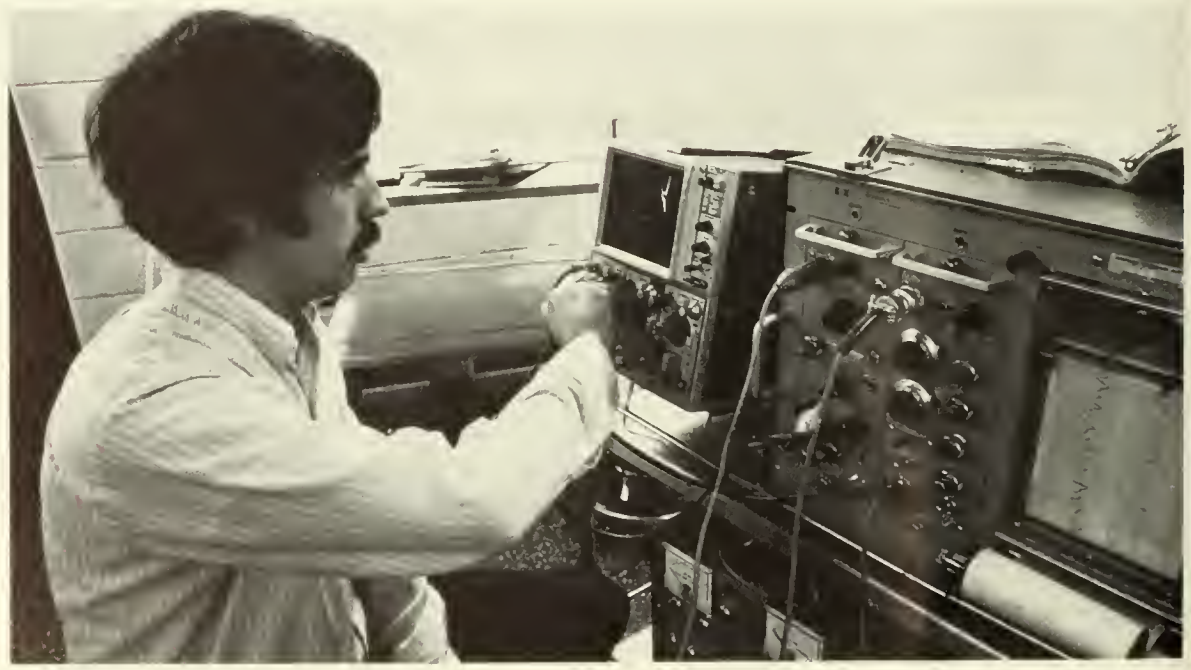
Biomedical engineering is the application of engineering principles and methods to problems in medicine. As engineering fields go, this is a fairly new one. Though where you mark the beginnings of the field depends somewhat on how you define its limits (Roentgen's use of x-rays, for example, might be considered one of the earliest instances of biomedical engineering), there were no educational programs to train professional biomedical engineers until the 1950s.

WPI doesn't really offer an undergraduate program in the way that some other colleges do, and in fact biomedical engineering isn't even a separate department, being instead an interdisciplinary program which uses faculty members who also have joint appointments with other departments. Prof. Robert A. Peura, '64, coordinator of the program, states its philosophy thus:

"Some schools offer a number of undergraduate courses in the biomedical area, but they attempt to cover such a breadth of material that the student never gets any real depth in any one area. We encourage our students to major in the department that reflects their basic interests—mechanical engineering, electrical engineering, computer science, chemical engineering—and then supplement that work with life science courses and, finally, if they choose, select from our senior- and graduate-level biomedical engineering courses.

"Most of our emphasis at the undergraduate level is through the project work, particularly projects done at the two hospital internship centers we maintain, at St. Vincent Hospital and at the University of Massachusetts Medical Center. These two centers offer students the opportunity to get practical, clinical experience in the field."

As HE TALKS about his field and his program, Peura's normally reserved manner takes on a passionate intensity. "For me, biomedical engineering is a chance to do something technical and really see the human benefit from your work, to do something that helps people live. I majored in electrical engineering at WPI, but I quickly discovered I didn't want to build a faster computer or make a better national defense system. I got interested in biomedical engineering after reading about defibrillators in the IEEE *Spectrum* during my junior year, and I ended up going on to Iowa State University for graduate work." He continues, "I guess what I like most about biomedical engineering is the amount of feedback I get from my work, the chance to see it put into practice and really be of direct benefit to other people."



FROM ITS BEGINNINGS in 1963 as a joint program operated by WPI and Clark University, the BME program has cut across all sorts of traditional academic boundaries. In those early days, WPI itself offered no biology courses, so a cooperative program was the only possibility. The initial foray into the area was with a seminar held in 1961, when Dick Beschle spoke on the subject. The next year a joint seminar program with Clark's biology department was held at WPI.

The first course in biomedical engineering was initiated by Dick Beschle in 1963, when it was given to students from both schools, and repeated during the summer for sixteen graduate students in electrical engineering. (That summer's course, incidentally, was either directly or indirectly responsible for the planning of biomedical engineering programs in at least two other schools.) Initially the program offered a master's degree, and a doctoral degree program was inaugurated in 1965.

If biomedical engineering had remained at the graduate level it attained by the late '60s at WPI, it would certainly be a good if traditional program. But then something different happened. The WPI Plan came along, and with it a focused emphasis on project work, the solution of real problems in conjunction with outside sponsors.

This opened up a whole range of new possibilities for WPI students. A project center agreement was quickly reached with St. Vincent Hospital, a 600-bed teaching hospital in southeast Worcester.

The February 1975 *Journal* described some of the work done by students at St. Vincent, specifically the refinement and development of a technique for detecting blood clots in the calf by measuring changes in electrical resistance, a procedure first defined by Dr. H. Brownell Wheeler, now chief of surgery at UMass Medical Center. The students' project, you may recall, involved the use of liverwursts (with holes drilled in them) to simulate the human calf. That project resulted in a validated medical test which is now used by the hospital, and Bill Penney, one of the students involved, is now on the WPI biomedical engineering faculty.

More recent work at St. Vincent has involved projects in blood pressure measurement, development of a cardiac simulator for training hospital personnel in the use of an intravenous pressure monitor, microcomputer-based patient monitoring techniques, designing a modified surgical tool for cutting bone, and designing an adjustable headrest for wheelchairs. Projects at UMass Medical Center have included designing and building a microprocessor-based instrument for monitoring the heart's oxygen consumption during surgery, measuring pulmonary artery temperature, building an instrument to monitor the operation of a defibrillator, devising a method for accurately testing the coefficient of friction of suture material (and thus determining the security of surgical knots,

measuring the true motion of the knee joint, devising a procedure for cooling large wounds to aid healing, a cough detector and counter, and work on determining the speed of blood flow by using ultrasonic waves and doppler shifts.

This wide range of projects, however, do show two consistent threads that are characteristic of what is perhaps the major emphasis of WPI's program: investigation of non-invasive measurement and monitoring techniques—that is, techniques and tests which can be made from outside (or on the surface of) the body to discover underlying conditions. The second thread is that much of the work done in the program is concerned with blood flow in the body—with the arteries and veins, and with heart action.

At WPI some 85 undergraduates are involved in the biomedical engineering program, in addition to 30 graduate students. While it will not likely ever match the size of one of the big departments—say ME or EE—biomedical engineering will continue to offer a uniquely different alternative for WPI student engineers.

During the early years of the WPI Plan, the term 'technological humanist' was coined to refer to the type of values-conscious engineers and scientists the school wanted to produce. Of all the technologies being studied at WPI today, can any be called more 'humane' than biomedical engineering, which is aimed at helping to protect and restore health and life?

RICHARD G. BESCHLE

The thing that was really special about Dick Beschle was the way he cared about students. He was always available to students, even if they weren't taking one of his courses or working for him. He spent a lot of time just being available for students with questions or problems." Those are the comments of Bob Peura, current biomedical engineering coordinator at WPI.

A former student echoed those sentiments: "To me, the most memorable thing about Dr. Beschle was that he spent several hours a day in the Biomedical engineering lounge talking to students. This was not official or part of a course. He was just always there, talking to students. The conversations were informative, educational, and interesting. This showed a real dedication to teaching."

One of his students later commented that Dick "exuded through his teachings and manner a deep respect for the living organism. I can remember quite distinctly Dr. Beschle relating the moving experience the first time he held in his hand a beating heart." That same student continued, "the most valuable learning experiences at WPI that I can recall were the informal gatherings 'chaired' by Dr. Beschle, where student research or other related topics were discussed an analyzed in an open forum. . . To him there was no such thing as a stupid question. He answered every one with patience and wisdom."

One of the big interests in Beschle's life was the scouting movement. Edwin B. Coghlin, Jr., '56, worked with Dick on a number of scouting committees and programs. He remembers, "Dick's tremendous commitment to an exceptional program . . . his great concern for the health and safety of each and every individual camper. . ."

Dick, a WPI graduate and member of the Class of 1950, was one of the founders of WPI's biomedical engineering program, and he directed its operations for many years. During that time it grew from a joint operation with Clark University to a separate WPI program serving scores of students each year. Through an administrative mixup, Dick, an associate professor since 1963, was passed over for promotion twice, despite the support of his colleagues in the Life Sciences Department. Dick was finally scheduled for the promotion to full professor he so richly deserved on July 1, 1980. But he didn't make it.

Dick's class was celebrating its 30th anniversary Reunion in June with a dinner at the Salem Cross Inn, West Brookfield, Massachusetts. As part of the program, Dick had begun to address the group when he suddenly collapsed, stricken with a massive heart attack.

A special effort is being made by a group of his colleagues and former students to create a memorial fund in Dick Beschle's name. As this issue went to press, over $5,000 had been raised. Ideally, the group would like to endow an annual graduate assistantship; if that is not possible, then an annual lecture series will result. If you would like to contribute to this fund, please send your donation to The Richard G. Beschle Memorial Fund, Worcester Polytechnic Institute, Worcester, Massachusetts 01609.

On butterfly wings this time

When we ran the article by Paul MacCready about the Gossamer aircraft in the summer issue of the *Journal*, we inadvertently left out the contributions of another WPI alumnus whose research was intimately involved with the success of the project.

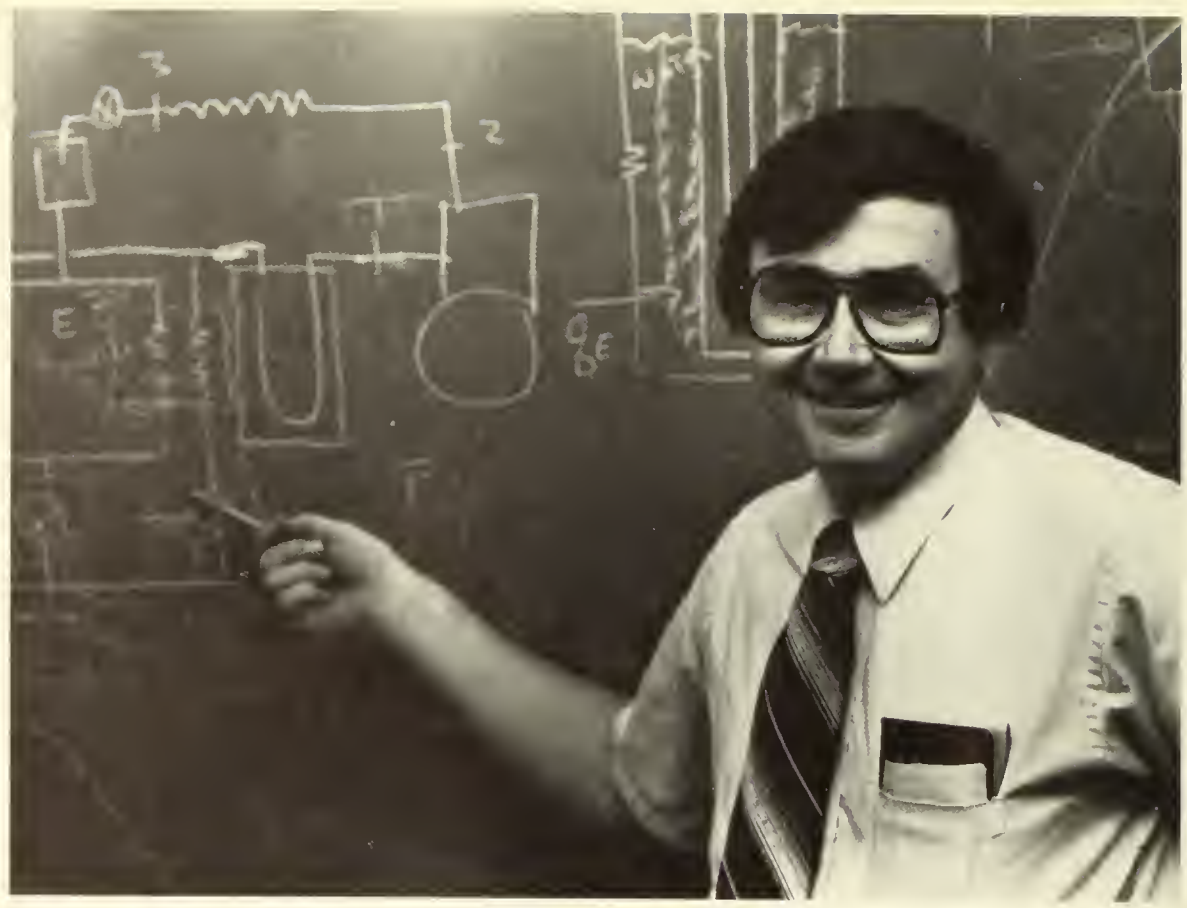
The alumnus is **E. Eugene Larrabee, '42,** who is currently associate professor at Massachusetts Institute of Technology. Students of Larrabee, using his propeller design algorithms, designed the final propeller for the Gossamer Albatross, helping to transform that initially unsuccessful aircraft into the Channel crosser that attracted world-wide attention. A popular account of Professor Larrabee's propeller design and analysis methods appears in *Scientific American* for July 1980.

Professor Larrabee gave the first of this year's Carl Gunnard Johnson seminars at WPI in September. His presentation covered propeller theory and the history of the *Chrysalis* project, which led to the construction by his students of a sophisticated pedal-drive airplane during the short period of 90 days in the spring of 1979. The biplane featured a 72-foot wingspan and weighed 95 pounds. The students were all undergraduates in MIT's department of aeronautics and astronautics. Stephen Finberg, an engineer in the Charles Stark Draper Laboratories in Cambridge, designed and constructed the Chrysalis air-speed measuring system and took the picture which is reproduced here.

The Chrysalis biplane, alas, is no more. After being flown more than 330 times during the summer of 1979 by at least 40 different pilots (including Bryan Allen), it was dismantled forever on September 16. A handsome 1/12th scale display model of the plane has been constructed for MIT's historical collection.

Professor Larrabee is proud to have received the Gospel according to Prandtl and Betz while he was a student of the late Professor Kenneth G. Merriam in the then-famous aeromechanics option of the ME department. And he's proud to continue passing it along to his students at MIT, where he has taught since 1946. But the Chrysalis project has to be the outstanding *Lehr und Kunst* activity of his life.

A BUSY MAN



IF YOU WANT to get a job done, give it to the busiest person you know," goes the old saying. The University of Arkansas apparently believes in old sayings. It just named Dr. Mason H. Somerville, '64, the new chairman of the department of mechanical engineering and engineering science.

Dr. Somerville made his way to Fayetteville, Arkansas, via Grand Forks, North Dakota and seven years of distinguished service at the University of North Dakota (UND). For the last three years, he has been director of the University's Engineering Experiment Station in the School of Engineering and Mines. Since 1976, he has also held the post of associate professor in the department of mechanical engineering.

At the Engineering Experiment Station, Somerville designed, negotiated, and implemented the Engineering Service Plan, which provides financial rewards for professionals at the School who are academically productive. He is also partially responsible for a research incentive plan with the University, which provides monies to the School. Under his leadership, the annual value of the station's research projects rose from $700,000 to $3.4 million in a space of five years.

As a professor at UND, he developed and taught the first graduate course on the finite element method. His other courses included fluid mechanics, turbomachinery design, and heat transfer. Along the way, he produced 32 major publications and reports totaling over 3,000 pages, and conducted research projects valued at over $1.3 million.

Concerned with alternate sources of energy, he designed, supervised the building of, and monitored three experimental residential solar heating systems and developed a multiple-source heat pump. The university's coal characterization proposal, which he chaired, won the Old West Consortium competition. His concern for energy extends outside of the classroom. He is one of the founders of the Energy Association of North Dakota, a private not-for-profit citizens' group dedicated to the furthering of energy conservation and the use of renewable energy.

A member of the North Dakota Solar Resource Advisory Panel, Somerville was also elected to the program planning and review board of the Mid-American Solar Energy Complex, Inc. to represent the state. He has helped arrange a national energy conference, and has participated in 65 solar energy and coal gasification presentations since 1975. In May, he was invited to testify before the Senate Appropriations Committee on DOE's conservation and solar application budget. Last February, he chaired a symposium on ice maker pumps.

A year ago, recognized as an outstanding faculty member at UND, he was elected a faculty lecturer. A number of other honors have come his way. Six years ago, he won the Outstanding Young Educator's Award from the Society of Automotive Engineers. Previously, he won the Most Demanding Teacher Award at Pennsylvania State University, which also named him the Olin Grant recipient in a faculty competition.

Dr. Somerville received his PhD from Penn State and his MSME from Northeastern. He is a registered professional engineer in North Dakota. An experienced researcher and consultant, his most recent project post was that of consultant in the design and construction of the HVAC system at the Cray Research Facility in Minneapolis. The design, an off-peak air conditioning system, was completed this year.

Somerville was active on numerous UND committees, and this year concluded a three-year term on the Faculty Research Committee. His professional memberships include the ASME, the International Solar Energy Society, and the American Society of Engineering Education. Recently, he was invited to speak before the Midwest Governors' Energy Task Force in St. Louis, Mo.

Prior to joining UND in 1973, he was a senior engineer at Westinghouse's Bettis Atomic Power Laboratory. One of his projects at Bettis was the completion of a major preliminary design of the shutdown and refueling facilities required for the U.S.S. Nimitz aircraft carrier. From 1967 to 1971, he

EAGER BEAVER?

SIX DAYS A WEEK, this WPI alumnus arrives at his offiee at 7:45 a.m. After opening thc mail, he eheeks the eash reeeipts, looks over the new invoices and the incoming orders, serutinizes the previous day's produetion figures, then takes a tour of the plant.

"An eager beaver," you tell yourself. "A young man trying to impress his boss. Trying to get to the top. Fast!"

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was a full-time instructor at Penn State, and from 1977 to the present, an invited leeturer at the University of Wiseonsin.

Dr. Somerville takes to the University of Arkansas a solid baekground of dedication, ereativity, and aehievement, as well as a profes-

sional reeord whieh will stand him in good stead as head of the Meehanieal Engineering Department. This summer, he took over his new post, whieh like any new job is both ehallenging and time-eonsuming. At Arkansas, he will teaeh meehanieal engineering, as well as serve as head of the department.

"I still plan to keep up with my outside aetivities, however," he deelares. "I sing in the Methodist Chureh ehoir, and I am aetive in Lions International." A family man, Somerville also enjoys raequetball, baekpaeking, and woodworking.

A busy man ean make time for almost everything.

Aetually, the "young" man is over 80 years old, and he's been at the top for deeades. He's Herbert E. Brooks, '20, owner and direetor of the Conant Ball Company of Gardner, Mass. For 60 years he's followed the same daily offiee routine. It's in his blood now. Herb Brooks likes to make sure that everything is running smoothly, and that everyone is doing his fair share to keep Conant Ball Company the produeer of fine quality furniture that it has been for 128 years. During his long eareer with the eompany, he's worked with five generations of his family: his grandfather, his father, his brother, his son, and sinee 1979, his grandson.

In 1920, he joined the firm as an assistant faetory superintendent. In 1936, he, his father, and his brother purehased control of thc business from the state of Edward Ball. Shortly afterward, he was eleeted president. When his father retired in 1949, Brooks was named treasurer. From 1974 to 1979, he was ehairman of the board. Presently, he serves as a direetor.

A Gardner native, Brooks attended WPI, graduating as a meehanieal engineer in 1920. While there, he was a member of Sigma Alpha Epsilon fraternity and Skull. During his vaeations, he worked in the family faetory learning how to make furniture. Some of his early responsibilities ineluded the supervision of the wood shop and the purehase of lumber. Subsequently, he took eharge of the entire manufaeturing operation of the eompany, and, mueh later, beeame the chief exeeutive offieer.

For a number of years, he attended furniture shows in Grand Rapids, Mieh., Chieago, Ill., and High Point, S.C. His interest and dedieation to the industry led him to aetive partieipation in the New England Assoeiation of Furniture Manufaeturers in the 1940's. Beeause he was a leader in the furniture field, he was invited to testify in Washington, D.C. before the World War II Priee Control Board. For two terms he held the post of direetor of the National Assoeiation of Furniture Manufaeturers.

Brooks' administrative talents have also served him well in eommunity affairs. He is a former direetor of the First National Bank of Gardner, and a past president of thc Gardner Home for Elderly People, and of the local United Fund. He is a 50-year member of the Masons, and a former member of the Monomonoe Sporting Club and the Rotary. He belongs to the Congregational Church.

Sinee he started work at Conant Ball in 1920, there have been many ehanges in the eompany. Originally, Conant Ball was strictly a ehair manufaeturer. Early on, unfinished ehairs were being shipped from Gardner to Boston to be finished and sold in the Boston finishing plant and showroom. Although the finishing operation was shut down in thc late 1920's, the firm eontinued operating showrooms in Boston and in New York City during the 1930's. Later, it produeed dining room and kitehen suites. Early Ameriean furniture was introdueed in the 1930's, with one of those lines only being discontinued in 1973.

Conant Ball was a leader in eontemporary furniture. In 1932, it brought out Ameriean Modern, designed by Russell Wright. Following World War II, it was in a good position to satisfy pent-up eonsumer demands. Chieago eonsumers nearly rioted when a model room was unveiled. The firm produeed that design for ovcr 20 years.

Currently, the eompany is famous for Sierra, its eontemporary line made of solid oak with walnut aeeents, as well as for another group styled in the eountry English manner. Another popular line is a group of solid oak put-together tables, introduced in 1977.

For 128 years, Conant Ball has maintained its reputation for high quality craftsmanship in the manufaeture of solid wood pieces. And for 60 years, Herb Brooks has been on the job at 7:45 a.m. to insure the eontinuanee of that reputation.

1915

Edward Nary writes that he is sorry that he missed the reunion, but hopes to attend next year. This year during reunion he was preparing to move back to his birthplace, Adams, Mass. after 65 years.

1920

Secretary:
Dr. Frederic R. Butler
228 Burncoat St.
Worcester, MA
01606

Burton Marsh, emeritus member of the WPI Board of Trustees, is presently at home from the hospital following a slight heart attack.

1926 REUNION

JUNE 4-7, 1981

Secretary
Archie J. Horne
1 Hunter Circle
Shrewsbury, MA
01545

Alfred Wilson writes: "I graduated from S.D. Warren Co./Scott Paper Co. more than eleven years ago and am still going strong." He recently moved from Westbrook, Me. to Quechee, Vt.

1929

Secretary
Holbrook L. Horton
120 W. Saddle River Rd.
Saddle River, NJ
07458

Representative:
Holbrook L. Horton

The class has completed its 50th anniversary of graduation program by selecting the Communications Research Laboratory on the third floor of Atwater Kent Laboratories as its gift to the college at a cost of $40,000. It had previously funded a scholarship until the architect finished the plans for WPI's newest improvement. **Holbrook Horton** was chairman of the gift selection committee, assisted by **Andy O'Connell, Diran Deranian, Frank Wiesman, Milt Labonte** and **Steve Donahue.**

1930

Secretary:
Carl W. Backstrom
113 Winifred Ave.
Worcester, MA
01602

Representative:
Carl W. Backstrom

Ed "Foxy Grandpa" **Delano** just keeps rolling along. He was the unofficial national champion in his age class at the recent 25-mile time trial, winning out over four other riders all younger than he. Ed is hitting the media on all fronts. Many newspapers ran the story of his historic ride to his 50th WPI reunion. He made "Faces in the Crowd" in *Sports Illustrated,* and he was featured in an article in *50 Plus* to name just a couple of magazines. He has also made a number of TV appearances.

1933

Secretary
Sumner B. Sweetser
100 Pine Grove Ave.
Summit, NJ
07901

Representative
Dr. Raymond B. Crawford
RFD Coldbrook Rd.
Oakham, MA
01068

Don Haskins and his wife and the **George Lymans** travelled with their trailers to Mexico in March. The Lymans left from Connecticut and met the Haskinses, from Utah, at the border. They then travelled together, communicating by CB radio. After enjoying the warmth of Mexico, they returned to the U.S. for a few days of skiing at Utah resorts. In the future, they hope to travel together through the West and Canada.

1935

Secretary
Raymond F. Starrett
Continental Country Club
Box 104
Wildwood, FL
32785

Representative:
Plummer Wiley
2906 Silver Hill Ave.
Baltimore, MD
21207

Last year, **Theron Cole** was named vice president of engineering, research and development at Parker Metal Corporation. . . . **Harvey White** now serves as president of Harvey W. White, Inc., Charlotte, N.C. He is a registered professional fire protection engineer and RM consultant.

1936 REUNION

JUNE 4-7, 1981

Secretary
Harold F. Henrickson
1406 Fox Hill Dr.
Sun City Center, FL
33570

George Rocheford recently received a lifetime membership award from the ASCE in Boston. He is active as a director of the Natick Lions Club and is busy with local charities.

1937

Secretary:
Richard J. Lyman
10 Hillcrest Rd.
Medfield, MA
02052

Representative.
Gordon F. Crowther
20 Bates St.
Hartford, CT
06114

Correspondent
Samuel W. Mencow
189 Parker Ave.
Holden, MA
01520

Hank Dearborn continues as a patent and trademark attorney at Texaco, Inc. and plans "to continue as long as my health lasts." He is headquartered in White Plains, N.Y. and resides in Summit, N.J. . . . Recently, **Harris Howland** returned from a sailing trip on his boat to the Dry Tortugas. He writes: "Have been retired now for five years and still enjoying it. I play tennis three or four times a week and a game of golf once in a while." Howland is a member of the U.S. Power Squadron with the rank of navigator.

The **Ray Linsleys** have returned from France where they visited their daughter who lives in Le Vesinet outside of Paris. (Their son-in-law is manager of the Paris branch of the Bank of America.) The Linsleys' oldest son is a consultant in the

restaurant business, and their second son is sales manager for a distributor of material for natural food stores. Their youngest son is on tour with his rock band, which has just released its first record.

After retiring from Hydrocomp, Inc., in 1977, Ray later formed a new consulting firm, Linsley, Krager Associates, in Aptos, Calif. Last year, he completed the third edition of *Water Resources Engineering* and received an honorary doctor of engineering from WPI.

1938

Representative
Francis B Swenson
599 Common St.
Walpole, MA
02081

Norman Bouley, formerly chief of production control at H.F. Livermore Corp., Boston, is retired. . . . **Robert O'Brien** continues with Kraft Dairy Group (Breyer, Sealtest, Breakstone, etc.) in Philadelphia.

1939

Secretary.
Charles H. Amidon, Jr.
636 Salisbury St
Holden, MA
01520

Representative
C. John Lindegren, Jr.
21 Prospect St.
Shrewsbury, MA
01545

Keith McKeeman has a winter home in Tucson, Arizona. He serves on the board of directors of Moses Ludington Hospital in Ticonderoga, N.Y. and is on the Planning Board of Hague, N.Y. He retired three years ago as chief industrial engineer from J.C. Penney Co. During his leisure time he enjoys golf and contract bridge. . . . **Ernie Sykes** says, "June 5th was commencement day for me as I retired from the lab at (University of California) Berkeley." Trailer travel is in the Sykes' future.

1940

Secretary
Robert E Dunklee, Jr
Rocky Hill Rd.
North Scituate, RI
02857

Representative
Russell A Lovell, Jr
Jonathan Lane
Sandwich, MA
02563

Eric Anderson and his wife Hazel are enjoying his early retirement from Pratt & Whitney Aircraft at their home in Meredith, N.H. on the shores of Lake Winnipesaukee. Although the shell of their house was built by a contractor, Eric did all the interior finishing himself with a little help from his friends. In the summer he commands his own fleet of small boats. In the winter he snowmobiles and goes cross-country skiing. "No Florida winters for this rugged Scandinavian!" . . . **Howard Anderson** continues as president of the W.W. Clark Corporation in Cleveland, Ohio. The firm provides complete electrical service to heavy industry such as steel mills, metal-working installations, chemical and processing plants, and electric utility company facilities. An avid golfer, he's had two holes-in-one, one of which occurred on Friday the 13th . . . Since retiring from his office and institutional furniture manufacturing business, **Donald Bates** has been keeping busy with interests in several small businesses and real estate projects. He writes: "Our favorite hobby is traveling. Besides other short trips, we go completely around the world twice a year."

George Bingham has just started a new career as manager of hydroelectric power and water resources for Chas. T. Main, Inc., in Portland, Oregon. Earlier, he had worked for 30 years for EBASCO Services and over seven years for Bonneville Power Administration. Once he took two delegations to Russia as part of the U.S. technical exchange program. He's made seven annual appearances before the Public Works Committees of the House and Senate. . . . **Bill Blades** is enjoying his early retirement from the Worcester Works (U.S. Steel) in Marco Island, Fla. Wife Vi is a volunteer at Naples Community Hospital. "Both of us have served in every church job except pastor and organist.". . . **Alexander Bodreau** has retired from American Optical Corp., Southbridge, Mass., after 38 years with the company. He is an avid fisherman, garden "putterer," and participant in town politics. For thirty years he has served as chief of the fire department in Quinebaug, Conn. He devotes quite a bit of time to fire prevention and community fire safety, and follows his grandchildren's participation in school sports.

Dr. **Ronald Brand** has retired from the University of Connecticut after 33 years. He had been with the faculty and had held the posts of head of the ME department and director of academic planning for the university. Over the years, he's held visiting professorships in Norway and England. Presently, he's "trying to keep a 200-year-old house and six acres in shape." He sails in Narragansett Bay and is treasurer of the Town of Eastford. The Brands have three children and two grandchildren.

Currently, **Malcolm Burton** serves as associate dean for undergraduate affairs, director of the College Program ("design your own curriculum"), and director of the freshman-sophomore program in the College of Engineering at Cornell University, where he has been on staff for 34 years. He was once associate dean for graduate studies when then associate Dean Cranch (now WPI president) was on leave. He wrote a textbook on applied metallurgy and was published in numerous technical publications. Once the owner of his own plane, his hobbies are now woodworking, carving, and painting waterfowl decoys.

Dr. **S. Carlton Dickerman** and his wife Anne enjoy retirement living on their 13-acre tract on Rogers Lake, Lyme, Conn. Activities include fishing, ice skating, wood cutting for the stove, and above all, gardening. They grow asparagus, rhubarb, raspberries, blueberries (20 qts. last year), and flowers. In the winter they garden in their greenhouse. **Arthur Dinsmore** says that he is in "sort of a pre-retirement slot" at Seneca Falls (N.Y.) Machine Company where he is manager of technical services. With the firm for 32 years, he has a number of patents for machine attachments, including some for the first automatic handling device for work machined between centers.

Formerly with GE, Wheeler Wire, and Essex Wire, **Kenneth Fraser** is now western regional sales manager for Markel Corp. The Frasers are sports lovers. They regularly participate in golf and league bowling, as well as gardening. Wife Jane works part time at the Bank of America. . . . Continuing as president and chairman of Jamesbury Corp., which he founded in 1954, **Howard Freeman** says he has no intention of retiring, "but I foresee shifts in emphasis on the horizon." The Freemans, who have two children and two grandchildren, enjoy their home on Cape Cod. . . . Last summer, **Clyde Gerald**, vice president of Lloyd Publicity Co., Baltimore, Md., decided to retire, but reports that he has so many irons in the fire he's thinking of going back to work "to rest up." His hobby is model railroading.

Leonard Goldsmith is continuing his career in research, development and manufacture of inertial attitude, reference, and navigation systems for aerospace applications, predominantly military. He serves as program manager in the Singer-Kearfott Division, Wayne, N.J. His wife Marcia, a professional, international folk singer, teaches viola, violin, and guitar, and plays chamber music on the viola. Their son Martin is an MD and Richard a documentary filmmaker. Goldsmith makes stained glass creations, hikes, and goes to concerts, museums and the theatre. After 30 years with Honeywell, **Will Gove** now holds the post of director of corporate real estate and field administration for the firm in Minneapolis. He is a junior warden and lay reader at his church, reads on the radio for the blind, and chairs a committee to sponsor three Vietnamese. A sports buff, he likes skiing and tennis.

Joe Halloran, past president of his local volunteer fire association, reports he has responded to over 800 fire alarms. At one fire he fell from the second floor into the basement of a small building following a chimney collapse. He is now treasurer of Box 22 Associates, International Fire Buff Associates, and a member of the Branford Yacht Club. With the Halloran Equipment Company, he has been manager of the industrial heat treating furnace division in New Haven and for thirty years has been New England representative for Ajax Electric Co. and Park Chemical Co. The youngest of the Hallorans' five children is a senior at St. Lawrence University.

Franklin Hayes still farms with D.F. Hayes & Son in North Brookfield, Mass. He and Norma have a married daughter and a son who attended WPI and is a mechanic. Hayes is an active Mason. . . . With six acres of woodland and a big garden, **Robert Hewey** says he gets plenty of exercise without leaving home. Currently, he is vice president of manufacturing at Sprague-Textron in Bridgeport, Conn. . . . **David Kuniholm** reports that he is still "lead soloist" at Kuniholm Associates in Petersham, Mass. His agency sells machinery and equipment to the textile, paper, and plastic film industries in New England. His son, David Jr., graduated from WPI in 1969, and his daughter, Donna, is married and living in Spain. The Kuniholms have made three trips to Spain, and have also toured Portugal, Rome, Greece, and Morocco. Presently, they are restoring a 200-year-old 11-room home in Petersham. "A challenge."

Russ Lovell's book, *The Cape Cod Story of Thornton W. Burgess,* is now in its second edition. His town history of Sandwich is slated to be published in 1982. For six years, he worked for a small research firm on the Cape in the ecology, energy planning field doing energy and pollution studies. He is married to Penelope Dalrymple-Balston, a British subject. They entertain a lot and have been around the world nine times.

Judson Lowd continues as president of C-E Natco in Tulsa. The company engineers, designs, manufactures, and erects crude oil and natural gas production processing facilities, mainly outside the USA. The Lowd's daughter Dana is a missionary in Thailand. The family currently concentrates on tennis, having pretty well given up their long-time association with horse shows. Lowd has served as a trustee of the University of Tulsa and of Beirut University College in Lebanon. After retirement, he plans to engage in some oil and gas related foreign consultation. . . . **Noel Maleady,** a member of the U.S. Power Squadron, now has his eighth boat, a 21-ft. D.C. Hatteras, and once took a 1,000-mile trip by water. Since his retirement from GE after 30 years, he's done a lot of traveling, including several trips to Europe.

The **Richard Mayers,** looking ahead to retirement, have built a Deck House in Intervale, N.H., near North Conway. They say the location should give them ready access to climbing, skiing, camping, and sailing and still be within striking distance of Boston and Maine. Mayer is a procurement specialist at Monsanto in Decatur, Alabama.

Richard Messinger, of Richard T. Messinger Insurance Agency, is a member of the Board of Assistants of the Massachusetts Society of Mayflower Descendants, and has done several professional genealogical searches for clients. For many years, he's been working on a comprehensive genealogy of the descendants of Henry Messinger of Boston and Robert Taft of Mendon, works he hopes to get ready for publication in the future. The father of three sons, Messinger has been involved in scouting, bowling, golf, and stamp collecting. Once he engineered the restoration of an 1896 Duryea with Charles Duryea himself. . . . Although his experience includes engineering stints at Buffalo Forge, Republic Flow Meters Co., and Crane Co., **Fred Miller** took a big gamble in the travel business and won. After 31 years of corporate life, he became a manager of a travel agency, and then decided to start a travel training school, Echols International Travel Training Courses, Inc., in San Francisco. Presently, Fred is president of the school and his wife, Virginia, is director of admissions and placement. He says that, despite being astride the San Andreas Fault, "we have been blessed with outstanding success." Daughter Nancy and her husband both help out at the school. Fred has been named a certified travel counselor by the Institute of Certified Travel Agents.

Lawrence Neale has had a number of articles published, one of the more recent being, "Experimental Evaluation of Fish Guidance Devices for Intakes" for the ASCE. Long associated with Alden Research Laboratory, he is now a flow specialist at Chas. T. Main, Inc., Boston. At Main, his responsibilities involve the review of hydraulic aspects of projects, including hydroelectric developments, thermal power plants, and other projects associated with flow phenomena. As a member of the firm, he travels to various locations supervising model studies of projects being designed by Main. Neale, who has won the Worcester Engineering Society's Scientific Achievement Award, belongs to numerous honor societies, technical societies, and professional committees.

In February, **Merrill Skeist** was named as a co-recipient of a U.S. patent for the magnetic arc spreading fluorescent lamp at Spellman High Voltage Electronics Corp., which he serves as president. Presently, he says he is acting out the role of innovator. So far, Lawrence Berkeley Labs (DOE) and GE are interested in the invention. In June, Skeist was slated to graduate from the Harvard Business School Small Company Management Program. He and Marian are active in many Jewish organizations.

Larry Sullivan, president of L.R. Sullivan Assoc., Inc., reports he has no plans for retirement. His company is the largest appraisal firm in northern New Jersey. The Sullivans spend winters in their oceanside condominium in Boca Raton, Fla. Hobbies are golf, bridge, and travel. One of their sons, Chris, is vice president of the company. Wife Bunny is in real estate. . . . This year **Harry Terkanian** is retiring as a senior engineer from Raytheon in Bedford, Mass. He expects to work part time after retirement. His wife, Mildred, has an accounting degree from Bentley and is a staff accountant at Millipore Corp. He is the benevolent treasurer at his church.

Daniel Von Bremen, Jr. gave his son an unusual wedding present — his own business as a manufacturer's representative selling hydraulic and pneumatic components. He still does some consulting. Although retired from refereeing high school and college soccer games, he is involved with Red Cross First Aid, CPR, and is chapter safety chairman, as well as being a member of the Cooperstown Rescue Squad. . . . Although **Frederic Wackerbarth's** family business was partially destroyed by fire last year, Wackerbarth Box Shop, Inc. is now making more pallets in its new setup than it did prior to the fire. For 15 years, Wackerbarth has been a member of the Granville, Mass. Finance Committee and has served as church deacon, 4-H leader and scoutmaster. (He holds the prestigious Silver Beaver Award from the BSA.) A lecturer on edible wild foods and pyramid power, he also enjoys gardening.

Dr. **Michael Wales** reports a year of great technical growth with three papers in the works and attendance at the Gordon Conference. Hobbies are literature, baroque mathematics, cross country skiing, and planning final retirement in Hawaii. After many years with Shell Development Co., he is presently senior research scientist at Abcor, Inc., Wilmington, Mass. He was involved in the development of a successful flame-resistant polystyrene for electronic applications. He has five patents. . . . After 31 years with ITT, **Thomas Wingardner** retired from the Avionics Division where he had "cradle to the grave" responsibility for all navigation contracts. The Wingardners have three college-graduate sons and five grandchildren. Presently, they divide their time between Marco Island, Fla., and Cape Cod.

1941 REUNION

JUNE 4-7, 1981

Secretary:
Russell W Parks
7250 Brill Rd.
Cincinnati, OH
45243

Continuing with International Energy Associates Ltd., **Hilliard Paige** holds the post of officer-director of the firm in Washington, D.C. He is a member of the WPI board of trustees.

1942

Representative:
Norman A. Wilson
17 Cranbrook Dr.
Holden, MA
01520

In July, the board of directors of Algonquin Industries, Inc., elected **John Townsend** as chairman and chief executive officer. Previously, he served as president and chief executive officer of the Guilford, Conn. magnet wire manufacturer since its founding in 1968. He holds world-wide patents in the field of taped magnet wire, assigning them to Algonquin's joint venture, the Magna-Ply Company, which he still serves as president and chief executive officer. . . **John Bartlett, Jr.** has been named general manager of New England High Carbon Wire Corp. of Millbury, Mass. The company produces ferrous spring wire and is owned by Precision Industries, Inc. of Washington, Pa. Earlier Bartlett had been a manufacturing manager for a Brown & Sharpe subsidiary in Manchester, Mich. He belongs to the Wire Association and has worked for Reid Avery Co., ACCO Industries, and Morgan Construction Co. . . . **Peter Holz,** chairman of the ASME Oak Ridge Section, served as chairman and master of ceremonies during the ASME Centennial Observance held in Knoxville, Tenn. in February. Prof. Donald Zwiep of the WPI mechanical engineering department, then the president of the ASME, gave the keynote address during the festivities. Holz, with Union Carbide, is also a professional engineer.

1943

Representative
Robert S. Schedin
RFD #1
Brookfield, MA
01506

Clifton Kinne holds the post of senior engineer at Imlac Corp., Needham, Mass. . . . **Herbert Marsh,** a professional engineer, continues at his post with Westinghouse. Last winter he was professional development chairman of the ASME Oak Ridge Section assisting with the ASME Centennial Observance which took place in Knoxville, Tenn. During the celebration, WPI Prof. Donald Zwiep, then national president of ASME, rededicated the three Dixie IV ASME sections located in northeastern Tennessee.

1946

Secretaries
M. Daniel Lacedonia
106 Ridge Rd
East Longmeadow, MA
01028

Geroge H. Conley, Jr
213 Stevens Dr.
Pittsburgh, PA
15236

Roger Broucek is now regional manager at H.J. Hodes & Co. in Kansas City, Mo. . . . **George Fritz** recently celebrated his 25th service anniversary at Teleype Corp. in Skokie, Ill. He is manager of the company's sales documentation organization. Besides his WPI degree, he holds a BA in English from the University of the Pacific in California. . . . In August, the Rev. **Prescott Grout** was a guest speaker at the First United Methodist Church of Westboro, Mass. Currently, he is a design draftsman at Riley Stoker in Worcester. . . . **Charles Miczek**, a corporate vice president at Stone & Webster Engineering Corporation, has also been appointed deputy director of engineering at the firm. He started work at the company in 1946, became head of structural engineering in 1968, and was appointed a senior engineering manager in 1978. He belongs to the ASCE and serves on the Society's Nuclear Standards Committee. He is a registered professional engineer.

1947

Representative:
Allan Glazer
20 Monadnock Dr.
Shrewsbury, MA
01545

Robert Mark is completing 33 years with General Electric Co. at 12 locations throughout the country. Presently, he is a member of the corporate employee relations staff at worldwide headquarters in Fairfield, Conn.

1950

Secretary
Lester J. Reynolds, Jr.
15 Cherry Lane
Basking Ridge, NJ
07920

Representative:
Henry S. Coe, Jr
3 Harwick Rd
Wakefield, MA
01880

Barbara Cocker, wife of **John Cocker,** is a well-known marine artist. In the summer she exhibits her work at the Old South Wharf in Nantucket, Mass. Her winter studio is in Rumson, N.J. She has had one-woman exhibitions at the Little Gallery at the Barbizon in New York, at the Artists' Association of Nantucket, and at Gallery 100 in Princeton, N.J. Her work has also been shown at a group exhibit at the National Academy in New York. She is listed in *Who's Who in American Art* and *Who's Who of American Women.* Her husband is on the technical staff at Bell Telephone Labs. . . . Dr. **Herman Nied** was recently appointed chairman of the Structures and Dynamics Committee of the Gas Turbine Division of the ASME. As chairman, Dr. Nied will coordinate and plan future conferences and sessions for the committee, focusing on the latest gas turbine technology. He is with the GE Research and Development Center and is a licensed professional engineer in New York and New Jersey. He belongs to the ASME, the Society for Experimental Stress and the American Academy of Mechanics.

Richard Olson was the co-author of "Rating Quality Systems" which appeared in the May issue of *Quality Progress.* He is a senior member of ASQC, is a registered professional engineer, and an associate member of the European Organization for Quality Control. For 25 years, he has held posts in quality control, reliability, engineering, and procurement in industry. A certified quality engineer, he is an adjunct professor of management at the University of Lowell. . . . **James Sullivan** has been named to the newly created post of chief steam power engineer at the consulting engineering firm of Neill and Gunter in Falmouth, Me. Previously, he was chief mechanical engineer for Thermo-Electron Corp., Waltham, Mass. Earlier, he was with Anderson-Nichols of Boston; General Dynamics of Groton, Conn.; Boston Edison Co.; Stone & Webster of Boston; and GE of Lynn, Mass.

1951 REUNION

JUNE 4-7, 1981

Secretary.
Stanley L. Miller
11 Ashwood Rd.
Paxton, MA
01612

Representative:
Duncan W. Munro
59 Brigham St.
Northboro, MA
01532

Andrew Freeland works for Harmon Electronics in Grain Valley, Mo.

In July, **Thomas McComiskey** was appointed assistant vice president at Buffalo Tank Operations (Bethlehem Steel) in Dunellen, N.J. Earlier, he was manager of the tank division's plants in Buffalo, N.Y. and Romulus, Mich. He joined Bethlehem in 1951 in the steel operations department's former fabricated steel construction (FSC) section. After two years with the U.S. Army, he returned to his former post of field engineer in 1955. He subsequently was named safety engineer for FSC's home office staff; a field engineer in the Eastern and Central districts; resident engineer in the Central and Western districts; and project engineer for the Central district. He also served as manager of construction and assistant manager of FSC erection in the Western district. In 1976, he was named to a product sales post with Buffalo Tank, Chicago area. After being advanced to resident salesman, Chicago, he became plant manager in Buffalo and Romulus.

Having left Sun Chemical as market manager of flexible packaging, **Phil Michelman** is now in marketing sales of packaging with Handschy Industries. He has two sons, Jeff and Mark. Jeff is entering Washington University at St. Louis for graduate work in hospital administration. Mark is starting his third year at the University of Illinois. The Michelmans live in Palatine, Ill., outside of Chicago. . . . **Neal Peterson** continues as a senior development engineer at the Foxboro (Mass.) Co. . . . **Donald Spooner** was appointed managing engineer of project design, Models B and C, in the Copy Products Department of the Kodak Apparatus Division (KAD). He joined Eastman Kodak in 1952. Most recently, he held the post of supervising development engineer, accessory development and design for KAD. Spooner, who belongs to Sigma Xi and the Rochester Engineering Society, holds a master's degree from MIT.

1952

Secretary:
Edward G. Samolis
580 Roberts Ave.
Syracuse, NY
13207

Representative
John M. Tracy
15 School St.
Northboro, MA
01532

Formerly technical director of Emhart's United Machinery Group, **Robert Johnson** has been named the new president and general manager of Fellows Corp., an Emhart subsidiary in North Springfield, Vt. Fellows manufactures gear cutting machinery and has 1000 employees. Johnson, a top research and development executive previously based in Beverly, Mass., joined Emhart in 1952. As United Machinery's technical director, he coordinated research and development, manufacturing, capital expenditures, patents, and long-range planning at 27 units in 17 countries. He has an MBA, is a registered professional engineer in Massachusetts, and belongs to the ASME, the American Association for the Advancement of Science, and the Industrial Research Institute.

1954

Secretary:
Roger R. Osell
18 Eliot Rd.
Lexington, MA
02173

Representative
Edwin Shivell
64 Woodland Dr.
Portsmouth, RI
02871

With Honeywell Information Systems for 15 years, in April **Andy Morgo** was transferred from California and Arizona back to Massachusetts. Presently, he is international support manager in Billerica.

1955

Secretary.
Kenneth L. Wakeen
344 Waterville Rd.
Avon, CT
06001

Representative:
Edouard S. P. Bouvier
123 Beechwoods Dr
Madison, CT
06443

Last Year, **Louis Axtman, Jr.** transferred from the New England Division, Corps of Engineers, to the new Disaster Agency established by the president in July. Presently, he is chief of the Structural Survey Group in the Operations Support Division located at the Federal Regional Center in Maynard, Mass. This summer, the Axtmans went to England where Mrs. Axtman was born. They have three children. Flying, sports car restoration, and music are favorite pastimes. . . . **Jerry Backlund** holds the post of manager of operations at American Cyanamid's Warners plant in Linden, N.J. The plant produces industrial and agricultural chemicals. Jerry is with the Field Artillery in the U.S. Army Reserve, where he teaches a command and general staff officer course to active Army, USAR, and National Guard officers. . . . The **David Bagleys,** who have a villa on the lake in Wolfeboro, N.H., also enjoy boating at Cape Cod, on the North Shore, and at Lake Winnipesaukee. Bagley is a sales engineer for a manufacturer representative at New England Controls, Inc., Mansfield, Mass.

. . . With IBM since graduation, **Earl Bloom** is now senior engineer and engineering manager of new business products in the Systems Products Division, Endicott, N.Y. Daughter Cindy majored in music at Mansfield State College in Pennsylvania, the college her sister, Tracy, plans to attend. Bloom's outside interests are golf, tennis, and investments. . . . **Edouard Bouvier,** who has been active on the WPI Alumni Council and as class bequest agent, also enjoys camping, gardening, and woodworking. He has been with Southern New England Telephone since 1956. This year, he was named staff manager of motor equipment. In 1978-79, he was chairman of the AT&T task force on microcomputers for building automation. Bouvier and his wife, June Marie, have seven children.

Long employed by Westinghouse, **Gedney Brown** continues in the company's Advance Reactors Division in Madison, Pa. In his spare time, he likes youth recreation activities, church work, choral singing, and specialty artwork. He is married and has two daughters. . . . P.W. Brown, Inc., **Paul Brown's** company in Westboro, Mass., is mainly concerned with utility and heavy construction in the New England area. The Browns, who have two boys and two girls, are restoring an old farm in Westboro, where they raise Scotch Highland cattle.

Marty Burden is now a product manager (reinforcing for automotive weather strips) at Schlegel Corporation, Carolina Division, in Chester, S.C. Before their recent transfer to South Carolina, the Burdens' major hobby was the restoration of a 140-year-old farm house. . . . **John Calhoun**'s son, John, Jr., is a student at WPI. Daughter Mary Jane goes to Holy Cross and David to the Coast Guard Academy. Ann and Paula are at Notre Dame Academy. Since 1976, Calhoun has held the post of personnel administrator at Heald Machine (Cincinnati Milacron) in Worcester. The family has a summer home in Plymouth, Mass., where they sail, swim, and work on the house.

Lt. Col. Dean Carlson (U.S. Army Ret.) is presently in the real estate marketing field with Mann Associates in Arnold, Md., where he is vice president. Since entering the profession of real estate, he has been involved with sales counseling, construction, property management, and administration. Carlson belongs to Schlaraffia, an international organization of German-speaking men (11,000 members). The Carlsons have two children. . . . **John Cnossen,** who is self-employed with Quaker Motor Lodge in Uxbridge, Mass., has also been a science teacher and head of the department at Uxbridge High School. Son Jack is a chemical engineering major at WPI. Michael graduated from Tufts Dental College in June, and Timothy from Eastern Nazarene College. Peter is a graduate of Uxbridge High School. In his spare time, Cnossen is a flight instructor. . . . Continuing with G&O Mfg. Co., New Haven, Conn., **Dick Crook** is now manager of product engineering, a post he has held since last year. He and Paula have three daughters and six cats. They own a 23-ft. sloop and can be found sailing in the Bahamas, the British Virgins, on Long Island Sound, and Narragansett Bay. Crook has a private pilot's license. He likes sports cars and competitive shooting. Last year he served as chairman of the Flood and Erosion Control Board of the Town of East Haven, Conn.

David Dayton is still president of Technical Development Corp., Boston. He also owns Dayton Corp., which is concerned with energy conservation products. He is on the board of directors of several businesses and community organizations. During his leisure time he runs, writes, and plays tennis. He and Shirley have five children. . . . **Lawrence Dennis** is currently chief of the Communications and Automatic Data Processing Division at the Communications and Electronics Materiel Readiness Command in Fort Monmouth, N.J. His career has sent him around the world, while family, church, and hobbies keep him busy at home. He is chairman of property and finances for his church. Lately he's taken up flying.

W.G. Dudevoir remains with Sanders Associates in Nashua, N.H. He belongs to the National Society of Professional Engineers and the Greater Nashua Youth Hockey Association. The Dudevoirs have four sons and a daughter. . . . **Alan Ede** has a collection of 16 mandolins and banjos. He enjoys bluegrass and "old-timey" music. Other interests are fishing, tent camping, and canoeing. He has been teaching at Oregon State University since 1974. . . . A Honeywell employee since 1960, **John Edfors** is presently manager of mechanical design and packaging of minicomputer and terminal products. Edfors is married, has an 18-year-old daughter, and works around his old farm. He is associated with a musical group, and likes woodworking and vacations in Maine. He owns a cottage, complete with a sailboat and a canoe. . . . Art-collecting, real estate, and land development are some of **Dick Goldman**'s pastimes. During working hours he is in program management at Intel in Santa Clara, Calif. . . . **John Goodwin** has had a 25-year career with the Federal Aviation Administration in Washington, D.C. Presently, he is airport advisor for the government of Spain in Madrid. Earlier, he was chief of the airport planning division. . . . Still with the mechanical engineering department at WPI, **Hartley Grandin, Jr.** enjoys woodworking and house design and construction. He and his wife, Diane, are the parents of Jennifer, 10, and Joel, 8.

Daniel Grant, Jr. serves as a lead electrical engineer on small hydroelectric power projects for Chas. T. Main, Inc., Boston, Mass. . . . Recently, **Donald Grenier** of Donald Grenier Corp., New York City, purchased an 18,000 sq. ft. building to house a new data center. In 1968, he formed his company to provide computer applications design service for clients. In 1976 a second division was started to provide processing services to clients who have no computers. The favorite family vacation spot is Chatham, Mass., and the favorite family outing is "Rooting for the Red Sox at Yankee Stadium." Grenier has served as Little League commissioner for three years and as chairman of the Carmel Planning Board for nine. . . . **Timothy Healey** continues as an attorney with Healey, Farrell & Lear in Washington, D.C. He and his wife Deirdre are the parents of Michael, Matthew, and Brian. . . . **Lawrence Henschel** holds the post of president of Sportsmen Accessories, Inc., Bridgeport, Conn. The firm is a major manufacturer of fishing pools and other sports items. Henschel's outside interests include scouting, water sports, and fishing. Wife Anita is a teacher.

Bob Holden, an engineering professor at Cuyamaca College in California, is an activist in the American Federation of Teachers, AFL-CIO, and the National Organization for Women. He has also been active in the cause of consititutional rights of public school students. Several times he has been elected as a member of the Democratic County Central Committee in San Diego County. He is the father of two teenage sons. . . . **Francis Horan**'s son Timothy is a student at WPI. James is at Holy Cross; Thomas at Shrewsbury High; and Maryellen is a junior high student. Horan has been with Massachusetts Electric since graduation. Presently, he is in Worcester as head of marketing for Massachusetts. A current member of the Shrewsbury School Committee, he has coached Little League and Youth Basketball, and has served as president of the Lions Club and the Chamber of Commerce. He was a trustee of Nonotuck Savings Bank, chairman of the United Fund, and president of the Fund's board of directors.

Active in numerous WPI alumni activities, **Pete Horstmann** has also been serving on the Holden School Committee and on the Wachusett Regional School District Committee. He is a corporator of the Worcester Boy's Club, Worcester Science Center, and Consumer Savings Bank. He is vice president of research and development and engineering at Coppus Engineering Corp. (industrial turbomachinery) in Worcester. This year Pete received the Herbert F. Taylor Award from the Alumni Association. . . . **Philip Jones** works as development engineering supervisor of the Printing Division at Kodak in Rochester, N.Y. After hours, he fishes, plays tennis, and collects and deals in antiques, especially clocks. He does volunteer work for public television and likes to ski. . . . Photography, sports, and dancing are the favorite pastimes for **Richard Kee,** who holds the post of director of product electronics engineering at Polaroid in Cambridge, Mass. He and Jennie have four children.

Brian Kelly is vice president and general manager of Bell Telephone Company of Pennsylvania. The Kellys' five children range in age from elementary school to law school. Busy with Little League, Kelly has also been on the board of directors of several organizations including the United Way, the Pittsburgh Symphony Society, and Blue Cross of Western Pennsylvania. . . . **Norman Lawrence** has performed twice at Carnegie Hall as a bass with the Rutgers University Choir. He's been with General Dynamics for 20 years. Now he is studying for his BS in computer sciences at Rutgers. The Lawrences have four children. . . . **Ray LeMieux** holds a pilot's license, plays golf, and listens to his classical records on home-built equipment. With Atlantic Richfield in Philadelphia, he helps provide Arco-developed technologies worldwide.

Philip Lincoln has been with IBM since graduation. Currently, he is in program management for semiconductor components. He writes: "Enjoying Vermont." He likes sailing on Lake Champlain and Burlington's cultural opportunities in music and theater. The Lincolns, who have three children, live in Essex Junction. . . . **Joseph Lite** is a test conductor of the global positioning system, Navstar satellite, at Rockwell International in Seal Beach, Calif. He belongs to the Rockwell Management Association, and he has won merit awards from community organizations. Popular pastimes are scuba and skindiving and involvement in scouting and Catholic church activities. . . . **Hank Manseau** serves as a cantor at St. Anne's Church in Northboro, Mass. He has

been a district commissioner for the Boy Scouts, and a cubmaster and scoutmaster. Formerly at Incoterm, he is now manager of corporate product planning of the Airlines and Financial Industries Division at Honeywell, Inc., Wellesley, Mass. The father of four, he enjoys sailing, canoeing, and cross-country skiing. . . . **Jim Mathews** is co-founder of L & M Sales, Inc., Marlboro, Mass. As a manufacturer's representative, he's concerned with capital equipment for the semiconductor industry. Earlier, he had been with Teradyne, Texas Instruments, and Sprague Electric. He has six children.

Dot and **Ralph Mongeon** are both involved with education groups. Ralph is vice president of the Massachusetts PTSA and Dot is in charge of volunteers at a Shrewsbury (Mass.) school. Last year, the four Mongeons took a cross-country trip at the height of the gas shortage. With Riley Stoker, Worcester, for many years, Ralph is now manager of boiler development. . . . Since 1974, **Edwin Nesman** has been employed by MIT as a staff engineer at Haystack Observatory in Westford, Mass. At the observatory, he supports radio-astronomy research with digital instrumentation design. Nesman has two children. He has served on the Bolton School Building Committee and the School Committee. . . . **Philip Olson**'s present position at United Illuminating is senior mechanical engineer supervisor. He and Nancy are the parents of Peter and Holly.

Martin Rafferty, an employee of Exxon Corp., is currently on loan to Aramco as engineering consultant on rotating equipment in the petroleum and process industries in Saudi Arabia. For the past ten years, he was with Esso in Libya. A do-it-yourselfer, Rafferty has lately been interested in volunteer fire brigade work. . . . After 17 years as a head football coach at several schools, **Art Rudman** has just resigned from Cheverus High School, Portland, Me. He and Nancy are opening a small boarding home in Skowhegan. (Nancy is an R.N. with long experience in nursing homes.) Art, who may not give up football completely, is selling insurance on the side. He has four children. . . . **George Robbins** continues as area superintendent of operations for Northeast Utilities in Torrington, Conn. Active in church work, he also has served on the Vocational Advisory Council and Litchfield Board of Education. He and Carol have three children. . . . With Presmet since 1955, **Rey Sansoucy** is presently vice president of engineering. He has six children and enjoys home construction projects, as well as gardening. He is a former chairman of the Worcester chapter of SME and the Boston chapter of APMI (Powder Metal Institute). In his car collection he has a 1930 Olds, a 1926 Model T, and a 1957 Ford.

Hal Sauer holds the post of vice president of Intermark Associates, Inc., a consulting organization which assists U.S. companies in establishing markets for their products outside the U.S. The firm is located in Sudbury, Mass. Sauer still plays the sax and clarinet. He is a present member and past chairman of the town planning board. . . . Last Year, **Robert Schultz** was appointed to the Oregon State Board of Engineering Examiners. He continues teaching at Oregon State University in Corvallis. He has received two outstanding teacher awards at the university. After class, he serves as a high school football and basketball official. He has four children. . . . **Robert Stempel**, vice president and general manager of the Pontiac Motor Division at General Motors, has been promoted to vice president for European sourced passenger car operations. A WPI trustee, this year he received the Robert H. Goddard Award.

Bruce Sealy is still with Comten, which has been acquired by NCR. He is located in Missouri, where he opened a company sales office in St. Louis nearly four years ago.

Richard Sieron is presently vice president of research and development at Dual-Lite, Inc. in Newtown, Conn. His outside interests include sailing and duplicate bridge. Remarried in 1974, Sieron has five children and a granddaughter, and his wife has a son and a daughter. . . . Now semi-retired, **Edward Simonian** operates a cow and calf farm, as well as a motel. He likes farming and fishing. . . . With IBM since 1962, **Gerry Sutton** is now involved in product development of office systems in White Plains, N.Y. "When not chasing the white ball, I enjoy solving the mysteries of cars," he writes. He has two BMWs. The Suttons' son just graduated from Syracuse and their daughter is in pre-law at Georgetown.

John Welsh is concerned with the engineering and marketing of computers at DEC. He participates in tennis, sailing, and gardening. . . . **Gerrit Swart**'s wife, Dixie, points out that they lived in 13 different places in the first 13 years of their marriage. Swart is an engineering associate in the Petroleum Development Department at Exxon Engineering in the powerforming area. He and his family lived in Europe for five years while working for Exxon. The youngest of his three children, Tim, was born in London. The Swarts are now located in Florham Park, N.J. . . .

A long-time employee of Pratt & Whitney, **James Warren** now holds the position of vice president of quality control in P & W's Machine Tool Division of Colt Industries in West Hartford, Conn. He and his wife are incorporated as Simsbury Tennis House, Inc. They lease, and Mimi operates, a four-court indoor tennis club. . . . For seven years, **Donald Zwiers** was chief engineer at Kemlite in Joliet, Ill. In 1977 he began using Kemlite's scrap material as a chain link fence filler strip. Now, he works full time with Deco Link, after developing the product from nothing to a growing business. Zwiers has four children. Civic-minded, he has been on the school board and has been associated with the Lions Club.

1956 REUNION

JUNE 4-7, 1981

Secretary,
Rev Paul D Schoonmaker
325 North Lewis Rd
Royersford, PA
19568

Representative.
John M. McHugh
431 Beacon Hill Dr
Cheshire, CT
06410

Joseph Concordia, a project manager for Herzog-Hart Corp., wrote "Catalyst Handling in Batch Hydrogenation" which appeared in the June issue of *CEP—Chemical Engineering Progress.* He has had over 23 years of experience in the design of specialty organic chemicals plants. . . . Still with Schirmer Engineering Corp., **David Provost** is currently a senior field engineer in loss control. He is a licensed professional engineer in California in fire protection and accident prevention in industrial and commercial properties.

1957

Secretary
Dr Robert A Yates
11 Oak Ridge Dr
Bethany, CT
06525

Representative.
Alex C. Papianou
15 Birch Tree Rd.
Foxboro, MA
02035

Philip Backlund serves as manager of energy and environmental management at Rockwell International Corp., Troy, Mich. . . . Dr. **Philip Rotondo** was the co-author of "Fiber Reinforced Concrete Poles Developed," which was published in the June issue of *Transmission and Distribution.* His training has been strongly oriented to structures and applied mechanics and has been applied to highway bridge construction, precast concrete structures, aircraft engine components, and nuclear reactors. He has a PhD from RPI, is a registered professional engineer, and is a consultant in Simsbury, Conn.

1958

Secretary
Harry R. Rydstrom
132 Sugartown Rd
Devon, PA
19333

Gas Service, Inc., has appointed **Donald Inglis** as vice president and general manager. The family is relocating from Massachusetts to the Nashua, N.H. area. Inglis has been with the Berkshire Gas Company of Pittsfield, Mass. since 1958. Before taking his new post, he had been a senior vice president at Berkshire. He has taken a number of management courses. Civic-minded, some of his community posts were trustee of Farren Memorial Hospital, director of the Valley Credit Bureau, and corporator of the Franklin Savings Institute. He was also active in scouting, and was a Montague town meeting member.

Bernard Podberesky was named manager of purchasing operations for GE in San Jose, Calif. The Podbereskys reside in Los Altos and have three daughters. . . . In June, **Norman Taupeka** graduated from the Industrial College of the Armed Forces in Washington, D.C. He is chief of the Systems Engineering Division at the Center for Tactical Computer Systems, U.S. Army Communications Research & Development Command, Fort Monmouth, N.J.

1959

Secretary·
Dr. Frederick H Lutze, Jr
110 Camelot Court NW
Blacksburg, VA
24060

Representative
Dr Joseph D. Bronzino
Trinity College
Summit St.
Hartford, CT
06106

After 20 years with GE, **George Constantine** is now general manager of Schulz Electric Co., a heavy electrical apparatus repair facility in New Haven, Conn. Annual sales of $4 million plus and the employment of 80 people make Schulz Electrical the largest independent facility of this type in the East.

1960

Secretary:
Paul W Bayliss
170 Wyngate Dr
Barrington, IL
60010

Representative.
John W Biddle
7B Highland St.
Holden, MA
01520

Paul Allaire, deputy managing director of Rank Xerox Limited, London, England, has been appointed managing director. (The post is the American equivalent of president.) In 1966, he received his master's degree from Carnegie-Mellon and joined Xerox Corp. as a financial analyst. From 1970 to 1973 he was director of financial planning and control at Rank Xerox in London. From 1973 to 1975, he returned to corporate headquarters as director of the international staff. Returning to England in 1975, he became chief staff officer at Rank Xerox. In 1979, he was named deputy managing director.

The Rev. **Charles Heslan** was awarded the prestigious 1980 Roselle W. Huddilston Medal at the annual meeting of the Maine Lung Association in June. The medal is presented annually to an individual rendering outstanding service in the field of health, one "who has assessed an unusual health need, established a program to meet that need, a program that could be used as a statewide pilot project." Rev. Heslan was the prime motivator behind the Arthur Jewell Community Health Center. He was co-author of the original grant application and often spoke in support of the center. Rev. Heslan attended Fitchburg State College and graduated from Bangor Theological Seminary. He holds a degree in history from Wright State University. . . . **Douglas Kendrick** is vice president of engineering at Telex Terminal Communications in Raleigh, N.C.

1961 REUNION

JUNE 4-7, 1981

Secretary
John J. Gabarro
8 Monadnock Rd.
Arlington, MA
02174

Robert Schomber was co-author of "A Utility Centralizes Its Repair and Maintenance Facilities" which appeared in the June issue of *Transmission and Distribution.* He holds the post of supervisor of the Equipment Repair Center at Florida Power and Light Co. Previously, he held line and staff assignments in financial and manufacturing capacities, and he has been budget supervisor and internal auditor for FP&L. A senior member of AIIE, he also has an MBA in finance from Syracuse University. . . . **Robert Schuessler** is vice president of manufacturing at Majestic Industries, Teterboro, N.J. . . . **Kenneth Tebo** serves as engineering manager at the Berlyn Corp., Worcester.

1962

Secretary:
Harry T. Rapelje
1313 Parma Hilton Rd.
Hilton, NY
14468

Representative:
Richard J. DiBuono
44 Lambert Circle
Marlboro, MA
01752

J. Alphee Desjardins is an associate professor at Northern Essex Community College in Haverhill, Mass. He, his wife, Virginia, and four children reside in Beverly.

1963

Secretary:
Robert E. Maynard,Jr.
8 Institute Rd.
North Grafton, MA
01536

Representative:
Joseph J. Mielinski, Jr.
34 Pioneer Rd.
Holden, MA
01520

Continuing with the U.S. Army, **Herbert Head** is now a Lt. Colonel at Camp H.M. Smith in Hawaii. . . . Dr. **Daniel Pender** recently completed a research fellowship in otology at Harvard Medical School. . . . **Edward Polewarczyk** of Sundstrand Corp., Rockford, Ill., spoke about the space program at the Elks Home in Webster, Mass. in June. Ed is resident materials manager of the Space Systems Group, Rockwell International, at Sundstrand.

1964

Secretary
Dr David T. Signori, Jr
6613 Denny Pl.
McLean, VA
22101

Representative
Barry J. Kadets
26 Harwich Rd
Chestnut Hill, MA
02167

Continuing with Digital, **Richard Downe** is now principal quality engineer for the firm in Augusta, Maine. . . . **Gary Goshgarian** spoke on the topic, "Atlantis: Fact and Fiction" at the annual meeting of the Boston chapter of the National Association for Armenian Studies and Research in Cambridge in May. His first novel, *Atlantis Fire* (see the spring 1980 Journal) recently released by Dial Press, has been judged by a fellow author as "The best novel I've read in five years." . . . **Stephen Harvey** has received his MSEE from Northeastern. He belongs to Pi Tau Sigma and is on the technical staff at Bell Labs, North Andover, Mass. . . . Dr. **David Laananen** holds the post of manager of the R&D Division at Simula, Inc., in Temple, Arizona. . . . **Robert Rounds, Jr.** of Rounds Technical Sales, Inc., reports that his business is presently located at 912 North Greenwood Ave., Park Ridge, Ill. Formerly, the firm was headquartered in Chicago. . . . Dr. **Al Potvin** participated in the ASEE-Biomedical Engineering Division Conference held in June at Amherst. He has served as chairman of the Division for 1979-80. During the past five years, three WPI electrical engineering graduates have been Division chairmen, including Dr. **Bob Peura**, '64, and Dr. **Joe Bronzino**, '59, who will chair in 1980-81. Dr. Potvin is a professor and chairman of Biomedical Engineering as well as professor of electrical engineering at the University of Texas at Arlington.

1965

Representative:
Patrick T. Moran
100 Chester Rd.
Boxboro, MA
01719

Peter Behmke is a product manager at Fram, East Providence, R.I. The Behmkes reside in Seekonk, Mass. . . . **John Hart** has just been appointed R&D engineering manager of Hewlett-Packard's Andover division. In his new post, he is responsible for all technical developments on the diagnostic medical equipment produced by the division, such as ultrasonic imaging systems, computerized EKG analaysis systems, and pulmonary diagnostic systems. John, Andrea, and their son, Jason, live in Acton, Mass. . . . **Benjamin Surowiecki** serves as vice president and general manager at Loctite Puerto Rico. . . . Cdr. **Francis Watson** holds the position of director of the construction support division at Naval Facilities Engineering Command in Alexandria, Va. He is in the Civil Engineer Corps of the U.S. Navy, and has an MSCE and PhD from Georgia Tech. . . . Dr. **Howard Sachs** has been named associate provost in the Office of Academic Affairs at Ohio State University in Columbus. Previously, he was assistant dean of the Graduate College of the University of Illinois at the Medical Center in Chicago. He taught anatomy and histology at Illinois starting in 1972, and became assistant dean in 1978. His field of research is developmental physiology. He has a PhD from Clark.

1966 REUNION

OCTOBER 1981

Secretary:
Gary Dyckman
29 Skilton Lane
Burlington, MA
01803

►*Married:* **Hugh R. McMenamy** and Dr. Marcia L. Comstock in Summit, New Jersey on May 23, 1980. The bride graduated from Manhattanville College and Columbia College of Physicians and Surgeons. Currently, she is a third-year resident in internal medicine at Overlook Hospital in Summit. Her husband graduated from Villanova, has an MSME from WPI, and holds the post of senior project engineer at Exxon Research and Engineering in Florham Park, N.J.

Dr. **Ronald Finn** is director of the cyclotron facility at Mt. Sinai Medical Center in Miami Beach, Fla. He also serves as adjunct assistant professor at the University of Miami School of Medicine. . . . Still with Heublein, **Raymond Hopkins** was appointed manager of the Spirits Group plant in Paducah, Ky. He is responsible for all manufacturing operations at the plant, which bottles such Heublein products as Smirnoff vodka, Heublein cocktails, Black Velvet Canadian whiskey, and Black & White scotch. Hopkins joined Heublein in 1969 as a management trainee, and most recently served as acting plant manager for the company's plant in Allen Park, Mich. He has an MBA from the University of Hartford. . . . **Kyle Ondricek** has been named business manager for the multi-media filing group at National of Holyoke (formerly National Blank Book). Before his appointment, he was product manager. He holds a degree from Northwestern.

William Spratt is general foreman at Rexnord in Worcester. . . . **Andrew Warner, Jr.** works as an associate at Leland Computer Services, Inc., in Atlanta, Ga. . . . **Malcolm White, Jr.** is a senior laboratory supervisor at Polaroid in Cambridge, Mass.

1967

Secretary
John L. Kilguss
5 Summershade Circle
Piscataway, NJ
08854

Representative
Douglas W. Klauber
10 Alice Dr.
Nashua, NH
03060

▶*Born:* to Mr. and Mrs. **Frank D. Manter** their second child, Ian Russel, on April 7, 1980. Manter received his MS in management from WPI in May.

Roger Bartholomew, S.J., has received his master of divinity degree from the University of Toronto. He serves as a physics teacher at Jesuit High School in New Orleans, La. . . . **Joseph Cieplak** was promoted to product manager for the Riehle and Systems product lines at ACCO Industries, Inc., Wilson Instrument Division, Bridgeport, Conn. The two product lines provide materials testing capabilities to determine strength and hardness. . . . Dr. **Robert Cornell,** research and development section manager, specialty chemicals, at Uniroyal, Inc., has been elected to the board of directors of the United Way of Naugatuck and Beacon Falls, Conn. He holds BS and MS degrees from Clarkson College and a PhD from WPI. A member of the American Chemical Society, Polymer Division, he also belongs to Sigma Xi. . . . **Peter Dickerson** serves as project manager at Badger America, Cambridge, Mass. He, his wife, and two children live in Acton.

John Dow is employed as assistant to the president of marketing at Page Gulfstream in San Antonio, Texas. . . . Dr. **Lee Estes** is one of two professors in the EE department at Southeastern Massachusetts University sharing a grant from the office of Naval Research for $63,829. Their funded research project is aimed at refining the use of sonar in detecting underwater objects. Since 1976, they have used sophisticated laser equipment to simulate sound waves in a miniaturized marine environment. Their findings will aid both naval submarine experts and maritime industries. Dr. Estes has taught at SMU for nine years, specializing in optics and communications. He and his coresearcher have received Navy grants totalling $210,000 in four years. . . . **Paul Granchelli** works as a scientific programming specialist for Lockheed Missiles and Space in Linthicum, Md. . . . Still with Hughes Aircraft in El Segundo, Calif., **Peter Herron** is currently manager of program planning and control.

Roy Lindquist has been promoted to manager of product development at Continental Emsco Company, Dallas, Texas . . . Navy Lt. Cmdr. **Robert McAndrew** recently participated in an amphibious landing exercise at Fort Story, Va. He is an officer assigned to detachment 106 from Amphibious Construction Battalion Two based in Roanoke. The amphibious landing was a substitute for a similar landing at Guantanamo Bay, Cuba, as part of the Atlantic Fleet's annual training operation, "Solid Shield." The original maneuver was canceled by the president in order to divert ships to help the refugees from Cuba. McAndrew joined the Navy in 1967.

1968

Secretary
Charles A. Griffin
2901 Municipal Pier Rd.
Shreveport, LA
71119

Representative
William J. Rasku
33 Mark Bradford Dr.
Holden, MA
01520

▶*Married:* **Francis** (Frank) **K. Verderber** and Barbara Georgakis on July 27, 1980. The bride, a dental hygienist, graduated from Farmingdale State in New York. Her husband is a corrosion control engineer for Long Island Lighting Co.

Edward Cannon, varsity soccer coach at St. Anselm's College, was on the staff of the Soccer Farm in Pomfret, Conn. as an instructor in August. He also served as program coordinator for one of the sessions. The Soccer Farm offers summer clinics for boys and girls from 8 to 18. . . . **Jeff Decker** just moved to Cincinnati where he joined the executive committee of Winegardner & Hammons, Inc. His prime responsibility is in hotel and restaruant development and corporate planning. He holds the post of senior vice president of the company. . . . **Charles Griffin** is a research associate in the department of biochemistry at the Louisiana State University Medical School in Shreveport, LA. He also owns Water Trails Canoes, a canoe rental and sales business. . . . **Ted Heidt** is employed as a financial analyst for Air Products & Chemicals in Allentown, Pa. He has MS degrees from Carnegie-Mellon and the University of Pittsburgh.

Dr. **Ronald Jodoin,** an assistant physics professor at Rochester Institute of Technology, has just received tenure from RIT. He and Martha have two children and live in Pittsford, N.Y. . . . **Chester Kasper, Jr.** now holds the position of senior sales engineer at Pearse & Pearson, Bloomfield, Conn. . . . **William Mahoney** serves as senior editor at R.S. Means, Inc., Kingston, Mass. He and Joanna have four children and live in Plymouth. . . . **Richard Scaia** is district engineer at the Torrington Co. in Hinsdale, Ill. . . . **Edward Zakzerewski** continues with Arco/Polymers Research and Development, which is relocating to the Philadelphia area.

1969

Secretary
James P. Atkinson
41 Naples Rd.
Brookline, MA
02146

Representative
Michael W. Noga
West Bare Hill Rd.
Harvard, MA
01451

▶*Married:* **James F. Baxendale** to Linda L. Polk in Asbury Park, New Jersey. Mrs. Baxendale graduated from Stuart School of Business Administration, Asbury Park. The bridegroom has a degree from Fairleigh Dickinson University. They are both employed by the U.S. government at Fort Monmouth, N.J. . . . **Ralph J. Eschborn II** and Ellen E. Asanoff on June 28, 1980 in Fairfield, Connecticut. The bride is a Phi Beta Kappa graduate from Lafayette College, Easton, Pa. She is an engineer for du Pont in Wilmington, where her husband holds the post of product technologist. . . . **Paul T. Shea** and Kathy A. Ohanian on August 3, 1980 in Providence, Rhode Island. Mrs. Shea graduated from URI. The groom who has a master's degree from URI, is currently a PhD candidate. He is with du Pont in Wilmington, Delaware.

Carl Ballard is employed as a senior engineer at Westinghouse-Bettis in West Mifflin, Pa. . . . **Rodney Dahlstrom** works as a senior process engineer at Stone & Webster Engineering, Boston. . . . **James Hills** was appointed engineering manager of the Lakso Company, a division of Package Machinery Company, in Leominster, Mass. For the past year, he operated his own business, Custom Valves and Controls Corporation of Worcester. Previously, he was engineering manager at Worcester Controls Corporation. He belongs to the Instrument Society of America and the ISA Control Valve Standard Committee. . . . Formerly vice president of economic development for the Blackstone Valley Chamber of Commerce and project manager for the Second Pawtucket Area Industrial Development Foundation, **John Poblocki** recently joined Kates Properties, Inc. of Providence. He is vice president of project development at the real estate development firm. Earlier, he played a prominent role in the development of the North Central-295 Industrial Park in Lincoln.

James Rodier, rates engineer for Public Service Company, was one of several public utility representatives who spoke before the Southern New Hampshire Association of Commerce & Industry, Inc., in June. The general topic of the public forum was the future of their companies and its effect upon business. Rodier has a juris doctorate from Suffolk Law School. Prior to joining Public Service Company as a staff engineer in 1976, he worked as a specialist in utility rate matters and regulation for firms in Boston and New York City. . . . **B. Lee Tuttle** has completed his PhD in metallurgy and is now teaching at General Motors Institute in the areas of metallurgy and manufacturing processing.

1970

Secretary
F. David Ploss III
208 St. Nicholas Ave.
Worcester, MA
01606

Representative
Garrett G. Graham
150 Brookside Rd.
Needham, MA
02194

▶*Married:* Maine Congressman **David F. Emery** and Carol L. Rordam on June 21, 1980 in Alexandria, Virginia. Mrs. Emery serves as a legislative advisor on energy matters for Congressman W. Henson Moore (R-La.). The couple plans to establish a permanent residence in Emery's hometown of Rockland.

M.E. (Rico) **Argentati** has been promoted to supervisor by Bell Telephone Laboratories, Inc., Denver, Colorado. With Bell since 1972, he holds a master's degree in engineering science from the University of California at San Diego and a master's degree in applied mathematics from the University of Colorado at Boulder. As supervisor of the Administration and Traffic Measurements Group in the Customer Switching Laboratory, Argentati directs development of Dimension PBX off-line computer software, traffic measurements, and real-time models. The Dimension PBX is an electronic private branch exchange developed by Bell Labs for business customers and manufactured by Western Electric in Denver. The Argentatis and their year-old daughter, Angela, live in Englewood.

Peter Bladen is senior engineer at Bechtel Power Corp., Gaithersburg, Md. He recently received his MS from North Carolina State University. . . . **Daniel Breen** serves as product manager for the Spectronics Division of Honeywell in Richardson, Texas. . . . **Daniel Czernicki** works as a technical representative at Naval Underwater Systems Center, Goodyear Aerospace Corp., Akron, Ohio. . . . **Raymond Danahy** received his PhD in nuclear physics at WPI in May. He teaches physics at Norwich University, Northfield, VT. . . . **Andy Donaldson** is employed as a lead process engineer at Stearns-Roger, Denver, Colo. He and Judy have two children and live in Parker. . . . **William Dudzik** continues as an operations research analyst with the U.S. Navy at the Washington, D.C. Navy Yard. . . . **Roger Johnson** is a corrosion engineer at Southern Connecticut Gas Co., New Haven. . . . **Alan Kolaczkowski** serves as a member of the technical staff at Sandia National Labs in Albuquerque, N.M.

Kent Lawson has been promoted to principal quality assurance engineer by the Polaroid Corporation. He is publicity chairman, senior member, and member of the executive committee of the Boston section of the American Society for Quality Control. Also, he is vice president of the board of directors of the Nassau Gardens Cooperative Housing Association, a 204-unit luxury living complex in Norwood, Mass. He will continue his responsibilities as a camera development engineer in the Polaroid Program Office, a group which shakes down new camera designs, plans the product and process flow, and brings the product to full production. He was instrumental in the development of the SX 70, Pronto, and One Step cameras.

Rajnikant Mehta holds the post of manager of the engineering department at Noblewest in East Hartford, Conn. . . . Having resigned from active duty as a U.S. Army captain last year, **Alan Prucnal** is now a contracting officer's representative (civilian) for the Army in Heidelberg, Germany. He has been in Germany since 1975, and he plans to stay in Europe for at least two more years. . . . **Robert Rosenberg** is a real estate broker and developer with Robert A. Rosenberg Associates in Quincy, Calif. He is a graduate of the Realtors Institute. . . . **Anthony Toscano** is now senior project manager for Buell Division of Envirotech Corp. in Lebanon, Pa.

1971

Secretary
Vincent T Pace
4707 Apple Lane
West Deptford, NJ
08066

▶*Married:* **Paul B. Sullivan** and Kathleen M. Schwarz on June 21, 1980 in Keyport, New Jersey. The bride is a computer programmer for American Telephone & Telegraph. She graduated from Glassboro State College. The groom is a systems designer for Western Electric Co. and holds a master's degree from Stevens Institute of Technology. . . . **John Szoke, Jr.** and Joan Ricklefs on August 2, 1980 in Portsmouth, New Hampshire. Mrs. Szoke, a music teacher in Auburn, Mass., graduated from Manhattanville College and UMass. Her husband serves as a biomedical engineer at Hewlett-Packard in Lexington, Mass.

Presently, **Dick Arena** is relocating to Michigan as the result of a promotion. He is sales manager of the automotive section at Martin Marietta Aluminum in Southfield. . . . Dr. **Joseph Carter,** who received an MS from the University of Minnesota this year, is with the Euclid Clinic Foundation in Cleveland, Ohio. . . . **Steven Chan** serves as a staff engineer at Ampex Corporation, Redwood City, Calif. He received his MSEE from WPI this year. The Chans and their two children reside in Fremont, Calif. . . . **Jim Crittenden** has just taken the position of project engineer at USCI Division of C.R. Bard in Billerica, Mass. He spent the previous four years as president of a small company he co-founded in 1976. The firm made products used in cardiovascular medicine. USCI, his current employer, now owns the business. In 1975, Jim won the Sports Car Club of America's A Sedan National Championship and was runner-up in 1976. He continues racing, sponsored by Mecca Development, which makes state-of-the-art lubricating systems for cars.

Dr. **Baljit Gambhir** is a senior engineer at Shell Oil in Houston. . . . **Alan Gradet,** an environmental engineer at Environmental Research & Technology, Inc. (ERT), Houston Engineering Division, was co-author of Part II of "Environmental Outlook for the '80s" (Managing Hazardous Wastes Under RCRA), in the July issue of *Chemical Engineering.* At ERT, Gradet is responsible for business and technical development of the firm's hazardous-waste consulting services in the Gulf Coast region. . . . **Chia-Soon Ku** serves as a senior research engineer at the National Bureau of Standards in Washington, D.C. He has a PhD from Penn State University.

Dr. **Richard Lindsay** continues as a research associate for the Grinding Wheel Division at Norton Co., Worcester. One of his responsibilities is to outline safe grinding practices to users of Norton's grinding wheels. Through seminars he has conducted, and technical papers he has written, he tries to impart a better understanding of the nature of grinding. Lindsay holds a PhD from WPI. He attended Worcester Junior College and graduated first in a class of 1200 at Northeastern, where he studied mechanical engineering. He has a master's degree from MIT. A noted expert in his field, he was elected to CIRP, the prestigious international institution for production-engineering research. . . . **Michael Murphy** has been promoted to production manager at Brockway Plastics in Sloatsburg, N.Y. He transferred from Nashua, N.H. . . . **Peter Salis** was promoted to engineering superintendent at National Starch and Chemical Corporation in Indianapolis. He joined the firm following graduation, and belongs to the American Institute of Chemical Engineers. . . . **Ray Skowyra** is employed as a marketing specialist at GE Plastics Division in Minneapolis.

1972

Secretary.
John A Woodward
Rte. 1
Box 7516, Fawnbrook
Hillsborough, NC
27278

Representative.
Thomas J Tracy
68 Mendon St.
Uxbridge, MA
01569

▶*Married:* **Alan E. Dion** to Patricia P. DesRoches on April 25, 1980 in Decatur, Georgia. Mrs. Dion graduated from Rhode Island Junior College and Providence College, and is program director of the DeKalb County E.O.A. The groom received his master's degree from URI. He is an environmental engineer with the U.S. EPA. . . . **Michael J. Ingemi** and Irene S. Wiik in Norwood, Massachusetts. The bride graduated from Westfield State College. . . . **Alan Nafis** and Sandra Busk on June 7, 1980 in Cheshire, Connecticut. Mrs. Nafis is a graduate of Stone School of Business. . . . **Kurt M. Wusterbarth** and Arlene E. Ryan on June 7, 1980 in Meriden, Connecticut. Mrs. Wusterbarth, an economist, graduated from Albertus Magnus College and Georgetown University. Her husband is a consulting engineer.

▶*Born:* to Betzi and **John Powers** a son, Thomas Ohlson, on July 7, 1980. Tom, the grandson of W. Robert Powers, '37, joins his brother, Jay, 5.

Roy Aloisio serves as a social worker for the State of Vermont in Newport. He and his wife Kathy live in Morrisville. . . . **Denis Kokernak** is presently with USCI-C.R. Bard, Billerica, Mass. . . . **Vahe Krikorian** works as a business quality manager at Digital in Maynard, Mass. . . . Dr. **Roy Lindblad** received his DDS from Case-Western in May. He is a dentist at St. Francis Hospital, Hartford, Conn. . . . **Mahendrakumar Patel** is employed as project engineer at Tembec, Inc., Temiscaming, Quebec. He and Sarla have two children. . . . **Bertrand Stanfield-Pinel** holds the post of vice president and general manager of Feau Realty Development & Management in Scottsdale, Ariz. . . . **Arnope Tantuvanich** works as a design engineer at Tekform Products Co., Anaheim, Calif. . . . **John Woodward** is a service administrator for GTE Southeast in Durham, N.C. He has a master's degree from USC.

1973

Secretary
Jay J Schnitzer
322 St. Paul St.
Apt #3
Brookline, MA
02146

Representative.
Robert E. Akie
33-8 Sheridan Dr
Shrewsbury, MA
01545

▶*Married:* **David S. Bowen** and Pamela Waldron on May 23, 1980 in South Windsor, Connecticut. The bride graduated from Central Connecticut State College, and is employed by the Living and Learning Schools, Farmington. Her husband works for Travelers Insurance in Hartford. . . . **Mark D. Whitley** and Janice M. Bell of New Orleans, Louisiana on June 22, 1979. Mrs. Whitley graduated from the University of Southwest Louisiana with a BA in business. Recently, Whitley was promoted to the post of senior reservoir engineer with Shell Oil Co. in New Orleans, where he is involved in economic analysis and reservoir evaluation.

Jason Burbank has received his MSME from UMass, Amherst. His master's project was concerned with passive solar heating in greenhouses. Presently, he is employed by Cleverdon, Varney, & Pike in Boston. . . . **Mark Cichocki** serves as a field service engineer at Coppus Engineering, Worcester. . . . **Jay Dimand** is a member of the technical staff at Schlumberger-Doll Research in Ridgefield, Conn. . . . **Frederick Kulas** has left IBM to join Digital Equipment as a product marketing manager. In his new post, he is responsible for product strategy, promotion, market development, and forecasting for Digital's Microcomputer Products Group in Marlboro, Mass. His wife, Sue, who holds an EdM degree from Harvard, is assistant dean of continuing education at Dean Junior College in Franklin, Mass. . . . **Kenneth Larsson** works as a project engineer at Converse Ward Davis Dixon in Caldwell, N.J. He has an MS from Columbia.

Roger Lavallee was recently promoted to actuarial research assistant at Aetna Life & Casualty in Hartford, Conn. . . . **Edward Peczynski** was promoted to the post of senior engineer at Northeast Utilities, Hartford, Conn. He is a registered professional engineer (Conn.) and has a master's degree from RPI. In 1973, he started at NU as an assistant engineer and was named associate engineer in 1975. He was promoted to company engineer in 1978. He belongs to IEEE, and is past chairman of the IEEE education committee, as well as being a member of the adjunct faculty at the University of Hartford. . . . **Martha Ryan** is employed as a process engineer at Digital Equipment in Hudson, Mass.

Roberto Slimak continues as the self-employed vice president of Textilera Avila in Caracas, Venezuela. . . . **Richard Socha** has received his PhD in chemical engineering from WPI. Since January, he has been employed as a research engineer at Mobil Research and Development Corp., Princeton, N.J. As part of his graduate research, in 1977 he and his wife Luanne spent six months in the USSR, where he worked with Soviet scientists as part of the American-Soviet Collaboration in Catalysis, Application to Manned Space Flights. The Sochas have a son, Michael. . . . Still with A.E. Staley Mfg. Co., **John Whitney** currently works as a syrup refinery superintendent in Morrisville, Pa.

1974

Secretary:
James F. Rubino
4433 Crossbridge Ct.
Plainfield, IN
46168

Representative.
David G. Lapre
P O Box 384
Tunkhannock, PA
18657

▶*Married:* **Albert E. Barrett, Jr.** and Allison Quirk in Farmington, Connecticut on May 10, 1980. Mrs. Barrett, an artist, graduated from the University of Connecticut. The bridegroom is a senior engineer with Instron Corporation, Canton, Mass. . . . **Neil E. Billings** to Nancy M. Vacca on April 12, 1980 in Sterling, Massachusetts. The bride, a Tahanto Regional High School graduate, is a secretary at Alden Research Lab. Her husband is employed at GE in Lynn, Mass. . . . **James F. Rubino** to Ann L. Boyle in Natick, Massachusetts on July 12, 1980. Mrs. Rubino graduated from Green Mountain Jr. College and UMass. She is an educational consultant at Curriculum Associates. The groom holds the post of district engineer for the Torrington Co. in Indianapolis, Ind. . . . **William P. Tanguay** and Nancy L. Boynton in South Bend, Indiana. The bride, a registered nurse specializing in allergy medicine, holds a BS in nursing from St. Teresa's College, Winona, Minn. Her husband is employed as a senior electrical engineer at Hammond Organ, Chicago. The Tanguays are members of Ocean, a popular rock group in the Chicago area.

▶*Born:* to **Jim** and **Lexy Chito Ferraris,** '77, a daughter, Nina Elizabeth, on July 20, 1980. Jim, with the Trane Co., is headquartered in Avon, Conn. The family resides in Burlington.

Brian Anderson is regional sales manager at Anacon, Inc., Burlington, Mass. . . . **James Bowen** now holds the post of product support engineer at Pratt & Whitney Aircraft in West Palm Beach, Fla. He and Judy have two children. . . . In May, **Roger Broeker, Jr.** received his MBA from the University of Houston. He is an instrument engineer at S.I.P. Engineering in Houston. . . . **Robert Bryant** serves as a control engineer at General Public Utilities, Reading, Pa. . . . **Wayne Bryant** is a systems programmer at Teradyne in Boston. . . . **Thomas Burns** is employed by GE's Gas Turbine Control Systems in Schenectady, N.Y. . . . **Robert Dutson** works as an accounts loss prevention consultant for the Kemper Group, Summit, N.J. He belongs to the Society of Fire Protection Engineers.

John Fanotto recently passed the Professional Engineers' exam in the state of California. Currently, he's lead field engineer with Bechtel Power Corp. at San Onofre Nuclear Power plant in San Clemente. . . . **David Gerth,** a CPA, now serves as manager of the Administrative Services Division of Arthur Andersen & Co., Boston. He has an MBA from Amos Tuck School, Dartmouth. . . . In March, **Donald Gross** was promoted to captain in the U.S. Air Force. Recently, he returned from an 18-month tour in Korea, and he is now attending undergraduate pilot training at Reese AFB in Texas. . . . **Bruce Lackey** holds the post of regional analytics specialist at Sybron/Taylor, San Leandro, Calif. . . . **Richard Ludorf** is employed by the system planning department at Northeast Utilities Service Co., Hartford, Conn.

Gary Pontbriand is now assistant plant manager at Quabaug Rubber Co., North Brookfield, Mass. . . . **Irvin Press** holds the position of marketing manager at the Robbins Co., Attleboro, Mass. He has an MBA from Boston University. . . . **Stanley Purington** is employed by Boeing as a specialist engineer in Everett, Washington. . . . **Joseph Strempek** works as a service engineer for Babcock & Wilcox, Houston, Texas. . . . **Richard Takanen** is employed as manager of manufacturing engineering at GE in Riverview, Mich. . . . **Brad Wetzel** is a senior project engineer at Sun Gas Co., Houston. The Wetzels and their two children live in Missouri City. . . . **Edwin Wiles** serves as design engineer at Reynolds Metals Company in Richmond, Va.

1975

Secretary
James D. Aceto, Jr.
35 Ticonderoga Lane
Millis, MA
02054

Representative
William F. George
27 Old Farm Rd.
Spencer, MA
01562

▶*Married:* Dr. **Andrew C. G. Armstrong** and Dr. Nancy E. Mraz on August 9, 1980 in Fort Fairfield, Maine. The bride and groom, both graduates of New England College of Optometry, Boston, share a practice of optometry in Plymouth, N.H. The bride is also a graduate of the University of Maine at Farmington. . . . **Patricia A. Graham** and Robert J. Flaherty on June 29, 1980 in Worcester. Mrs. Flaherty is a mathematics instructor at Central New England College and at Assabet Valley Regional Vocational School. The bridegroom graduated from Bowdoin College and from Nichols College, where he received his master's degree. He is an area representative for Pitney Bowes in Waltham. . . . **Robert E. Linna, Jr.** and Connie A. Sullivan on May 10, 1980 in South Yarmouth, Massachusetts. Mrs. Linna graduated from Dennis-Yarmouth Regional High School. She was formerly employed at Bass River Savings Bank. Her husband serves as a computer programmer at Coppus Engineering, Worcester.

▶*Born:* to Mr. and Mrs. **Alan Bergstrom** a daughter, Katharine, on October 10, 1979. Bergstrom is an associate in research in the dermatology department at Yale School of Medicine. . . . to Mr. and Mrs. **Kenneth W. Linder** a son, Ken, Jr., on October 16, 1979. Linder is a chemical account engineer for Industrial Risk Insurers in Chicago. He and his wife, Sue, live in Naperville, Ill.

Richard Caruso works as a process design engineer at Hydrocarbon Research, Inc., Miami. . . . **David Chevalier** continues as a buyer for Chevalier Furniture, Worcester. . . . **Louis Christoforo** serves as data processing manager at Tech Hifi, Inc., Randolph, Mass. . . . **Michael Dolan** holds the post of process development engineer at Mobil R&D Corp. in Paulsboro, N.J. . . . **Francis DuGrenier** is in the final year of a PhD program in the School of Business at UMass, where he is a research associate. He received his MBA in 1977. . . . Presently, **Glenn Ekwall** works as an on-site project manager in the RCC Unit at Ashland Oil for U.O.P. Inc., Des Plaines, Ill. Recently, he was transferred from the technical service department, for which he and his wife had traveled throughout Europe on various refinery startup activities.

In May, **Richard Gannon** received a doctor of pharmacy degree from Philadelphia College of Pharmacy and Science. He earned his BS in science from the University of Connecticut School of Pharmacy. A member of Rho Chi national honor society, he did his pharmacy residency at Thomas Jefferson University Hospital, Philadelphia. . . . **Robert Granger** was awarded his JD, cum laude, from Suffolk University Law School recently. He is a principal consultant for Chas. T. Main, Inc., Boston. . . . **Edward Greenebaum** holds the position of project engineer at Huth Engineers, Inc., Lancaster, Pa. He is a registered professional engineer in Pennsylvania. . . . **Frederick Greulich** is Coast department manager at Procter & Gamble Mfg. Co., Staten Island, N.Y.

Charlene Hodgkins works for CY/RO Industries in Stamford, Conn. . . . **Louis Isgur** received his MBA from Suffolk University, Boston, on June 8th. He is a member of Delta Mu Delta and serves as production engineer, small systems division, at Honeywell in Lawrence, Mass. . . . **Moshen Kavehrad,** who has a PhD from Polytechnic Institute of Brooklyn, is senior staff engineer at GTE Satellite Corp., Stamford, Conn. . . . **Jonathan Leather** is employed as a field engineer at Imperial Metallic Lubricants, Inc., Dedham, Mass. . . . Dr. **Joseph LeBritton** continues as a research associate in physics at the University of Rochester in New York. His specialty is particle physics research at Brookhaven Lab. Last year, he received his PhD from the University of Rochester. . . . Last fall, **Penn Pixley** was promoted to plant engineer at the Celotex Corp. plant in Quincy, Ill. He supervises the departments of maintenance, power generation, and engineering.

David Salomaki and his wife, Mary, have bought a house in Santa Clara, Calif. Salomaki is a development engineer for Hewlett-Packard/Dana Systems Division, where he is designing the next generation computer. He also teaches a course at San Jose State University. . . . **Charles Shillito** and his wife, Lois, live in Shrub Oak, N.Y. Shillito is with Malcolm Pirnie, Inc., White Plains. . . . **Robert Sooy** works as an R&D project engineer at Emhart Corp., Dyna-Pert Division, Beverly, Mass. . . . **Michael Sundberg** is presently a lieutenant in the U.S. Navy with the Naval Administrative Command in Great Lakes, Ill. . . . **David Williams** serves as an associate transportation planner at Northern Middlesex Area Commission, Lowell, Mass. His wife, Gretchen, is also a planner, and will soon start work at the regional planning agency in Boston. Williams has a master's degree in urban planning from the University of Wisconsin.

1976 REUNION

OCTOBER 1981

Secretary:
Paula E. Stratouly
1804 Windsor Ridge Dr.
Westboro, MA
01581

Representative:
Richard P. Predella, Jr
493 Page St
Lunenburg, MA
01462

▶*Married:* **Patrick J. Murphy** and Janet E. Millerd in Willimantic, Connecticut on June 28, 1980. The bride has an intermediate education degree from Eastern Connecticut State College and is taking graduate courses in mathematics at the University of Houston. She is a fifth grade teacher. The bridegroom works for Ebasco Services, Houston. . . . **Donald P. Nardi** to Katherine A. Evans in East Longmeadow, Massachusetts on June 7, 1980. Mrs. Nardi graduated from Springfield Technical Community College, and is an administrative assistant at Greater Springfield Chamber of Commerce. Her husband, a technician at Monsanto Co., attends Western New England College. . . . **Richard P. Predella, Jr.** and Margaret M. Lantaigne on May 31, 1980 in East Longmeadow, Massachusetts. Mrs. Predella graduated from North Adams State College. She is a claims adjuster at Commercial Assurance Company in Peabody, Mass. The groom is with New England Telephone and Telegraph in Fitchburg, Mass.

▶*Married:* **Robert W. Sengstaken** and Teresa A. Clark in Keene, New Hampshire on June 21, 1980. Mrs. Sengstaken graduated from Keene State College and New Hampshire Vocational Technical College. Her husband works for Markem Corporation. . . . **Robert G. Valentine, Jr.** and Caterina L. Sciannameo on May 3, 1980 in Worcester. Mrs. Valentine is a graduate of the Memorial Hospital School of Nursing. She is a nurse at St. Vincent Hospital. The groom serves as a systems analyst at St. Vincent. . . . **John A. Watters, Jr.** and Patricia A. Baker on March 29, 1980 in Millbury, Massachusetts. Mrs. Watters graduated from North High School, Worcester, and is employed by Cottage Tailor, Inc., Worcester. Her husband is with John Hancock Mutual Life Insurance Co.

Mark Allyn is now in San Diego working for the U.S. Navy's Naval Electronic Systems Engineering Center. He is responsible for the installation of high power radio transmitters. . . . **Scott Bamford** serves as a geotechnical engineer at Woodward-Clyde Consult. in Houston, Texas. He has received his MS in ocean engineering from URI. . . . **Val Danos** works for East Bay Municipal Utilities District. . . . **Wayne Dyer** is a programmer at Computervision in Burlington, Mass. . . . In May, **James Farina** received his PhD in physics from Drexel University. He is a visiting assistant professor in the physics department at Drexel in Philadelphia. . . . **Wesley Gilbert** and his bride, Nancy, who were married on May 31st, have just moved into a "new-old" home in Broad Brook, Conn. Gilbert serves as chief engineer at Frame-Up Engineering Co. in Enfield. . . . **Jonathan Hatch** holds the post of process control engineer at PPG Industries, Pittsburgh, Pa. . . . **Barry Heitner** is employed as a process engineer at du Pont in Orange, Texas.

Presently, **Walter Hoehn** is with SE Data Processing Co., Miami, Fla. . . . **Elizabeth Papandrea Lariviere** is now in product line planning and management for microwave radio at Western Electric in North Andover, Mass. . . . **Robert Lerner** serves as an office automation consultant at Wang Labs, Lowell, Mass. He holds an MBA from the University of Rochester. . . . **Tom McAloon** is employed as a sanitary engineer at New Hampshire Water Supply & Pollution Control Commission in Concord. . . . **William McGee** works as a design engineer at Applicon, Inc., in Burlington, Mass. . . . **James Petrillo** is a senior process engineer at B.F. Goodrich Chemical Co., Pedricktown, N.J. . . . **Craig Plourde** was elected assistant treasurer of the technical support department at Connecticut Bank and Trust Co., Hartford, Conn. He joined the bank in 1976 as a programmer and was promoted to senior systems engineer two years ago.

Steven Silva holds the position of microcomputer development specialist at Tektronix, North Syracuse, N.Y. . . . **John Smith,** a PhD candidate at SUNY in Buffalo, works as a research assistant at Health Research, Inc., Roswell Park Memorial Institute. . . . **Arthur Stryer** has received his MBA from Northeastern. He serves as a senior design engineer at Data General, Westboro, Mass. . . . **Jeff Triwedi** continues as a sales engineer at GE in Oakbrook, Ill. . . . **Donald Weymouth** is manager of manufacturing systems at Wright Line, Inc., Worcester.

1977

Secretary:
Kathleen Molony
6 Aiken St.
Norwalk, CT
06851

Representative
Christopher D Baker
11 Boston St.
Lawrence, MA
01841

▶*Married:* **Glenn R. Andrews** to Jeanne A. McKenna on August 2, 1980 in Stamford, Connecticut. Mrs. Andrews, a computer programmer at Travelers Insurance, Hartford, graduated from Fairfield University. Her husband is also a computer programmer at Travelers. . . . **Robert E. Bowser** and Miss Donna Lindsay of North Brookfield, Massachusetts on June 14, 1980. The bride graduated from Anna Maria in 1978 and from Columbia University School of Nursing in 1980. She is employed at the Children's Hospital National Medical Center, Washington, D.C. The groom is with the Naval Sea Systems Command in Washington. . . . **Brian D. Buckley** and **Kristina T. Perry** on September 13, 1980 in Worcester. The bride was formerly a civil engineer in the Department of Public Works, Holden, Mass. Her husband is a nuclear engineer at Portsmouth Naval Shipyard in Kittery, Me. After a trip to Ireland, the couple is residing in Kittery Point. . . . **James A. Buffi** and Deborah R. Bucci on August 9, 1980 in Johnston, Rhode Island. Mrs. Buffi, who attends the University of Bridgeport Law School, graduated from URI. Her husband works as a project engineer-estimator for Dimeo Construction Company, and he is completing his MBA at Bryant College. . . . **Don L. Drinkwater** and Barbara A. Morrison on July 13, 1980 in West Warren, Massachusetts. The bride is a Becker graduate. Currently, she is in the nursing program at Boston State College. Her husband is employed at Digital in Tewksbury.

▶*Married:* **George L. Keeler** and Frances L. Link in Pittsfield, Massachusetts on August 2, 1980. Mrs. Keeler graduated from Fitchburg State College School of Nursing and is a nurse at Berkshire Medical Center. The bridegroom is a design engineer for GE Ordnance Systems. He received his master's degree from RPI this year. . . . **Thomas W. Kintz** and Anita Duchesneau in Norway, Maine on May 17, 1980. Mrs. Kintz graduated from Becker. Her husband is presently employed by Connecticut Light and Power. . . . **Brian D. Kisiel** and Donna M. Oppici in West Boylston, Massachusetts on May 17, 1980. Mrs. Kisiel, a counselor for the Nashua (N.H.) Youth Council, graduated from Framingham State College. Her husband is a sales engineer for Betz Laboratories.

▶*Married:* **Gary A. Loeb** and Leslie G. Levine in Albany, New York on May 11, 1980. The bride graduated from Hudson Valley Community College and Russell Sage. She is a probation officer for Albany County. The bridgroom serves as assistant to the superintendent of the Niagara Mohawk Albany Steam Station. . . . **Mark O. Puputti** and **Brenda A. Boucher, '80** in Chicopee, Massachusetts on July 12, 1980. Mrs. Puputti is a process engineer at GTE Laboratories in Waltham, Mass. Her husband is a production engineer at Polaroid Corp., Waltham. . . . **Steven E. Sweeney** and Monica A. Murphy in Albany, New York on May 31, 1980. The bride graduated as a nurse from Maria College. The bridegroom is with the New York State Department of Transportation. . . . **Joseph C. Williams** and Margaret George on May 25, 1980 in Auburn, Massachusetts. Mrs. Williams, an Anna

Maria graduate, is a social worker at the University of Massachusetts Medical Center, Worcester. Her husband serves as a manufacturing engineer in the Vitrified Grinding Wheel Division at Norton Company.

Raad Al-Awqati works as a special service representative for M. A. Al-Bahar in Kuwait. . . . **Christopher** "Bake" **Baker** is now an assistant engineer at Edwards & Kelcey in Boston. . . . **Michael Bloom** holds a new post as senior systems programmer-performance analyst at Interactive Data Corp., Waltham, Mass. . . . **Bruce Baran** is working for his doctorate in physics at Northeastern. . . . **Stephen Coleman** continues as an actuarial associate at State Mutual in Worcester. . . . **Paul Craffey** has received his MS in chemical engineering from UMass. He now works for Owens Corning in Grandville, Ohio. . . . **Bill Cunningham** was recently awarded a fellowship in the two-year MBA program at Tuck School at Dartmouth. Says Bill, "I'll be majoring in marketing, finance, and skiing." Data General has given Bill a leave of absence for his graduate study. Last summer, the company sent him to Germany for a week to set up a training program. . . . **Scott Davidson** is a senior software engineer at DEC in Maynard, Mass.

David Drzyzgula holds the post of manager of Agway, Inc., in Rutland, Vt. . . . **Apostolos Economou** works for Sole Ltd. Solar Domestic Appliance Industry, Athens, Greece. . . . **Jim Gado** is a first-year student at Suffolk Law School. . . . **Gary Helmstetter** is a systems designer at Software House in Cambridge, Mass. . . . Last summer, to maintain his crewing ability, **Eric Hertz** attended rowing camp in Craftsbury, Vt. . . . **Jim Lunney** has been transferred by GE's International Division to Scotland, where he is concerned with navigational computer projects. The 18-month stint was "conveniently" arranged so that Jim can take in two Oktoberfests in Germany. . . . **Kim Mohanty** is a physics associate at Brookhaven National Labs, Upton, N.Y. . . . **Kathy Molony** has been promoted from product district supervisor to new products coordinator at Clairol in Stamford, Conn. . . . **Christopher Morosas** is employed as a product development engineer at CIT Cryogenics in Waltham, Mass. . . . **Jeffrey Peterson** works for United Technologies in Hartford, Conn. . . . **Scott Saftler** holds the position of product consultant at National CSS in Wilton, Conn.

Igor Shulyak continues as a process engineer at Norton's in Worcester. . . . **Donald Statile** serves as associate engineer at Yankee Atomic Electric Company, Westboro, Mass. He has a master's degree from RPI. . . . Last Year, **Gregory Tietbohl** received his master's degree from the University of Delaware, then worked for a time as a thermal systems engineer at General Electric in Lynn. Presently, he is an R & D engineer for Riley Stoker in Worcester.

1978

Secretary
Cynthia Grynick
303 Wolcott St.
Waterbury, CT
06705

▶*Married:* **Ralph S. Chapman** and Vida Yazdi of Hempstead, L.I., New York on May 31, 1980. The bride graduated from New York Institute of Technology with a BS in interior design. Her husband serves as a systems programmer in the advanced technology department of National CSS, Inc., Wilton, Conn. . . . **Jeffrey M. Fraulino** and Faith E. Kachinsky in Middletown, Connecticut on June 28, 1980. The bride, a student at Middlesex Community College, works at Liberty Bank for Savings. The bridegroom attends Hartford Graduate Center. He works for Macchi Engineers. . . . **Linda E. Lammi** and Emmanuel Papanicholas in Topsfield, Massachusetts. Mrs. Papanicholas has a BS from Northeastern and an MS from WPI. Her husband, a graduate of Suffolk University, is with Atlantic Tracy, Inc., of Beverly, Mass. . . . **Robert Lundin** and Joan Gribouski on April 19, 1980 in Worcester. The bride graduated from Quinsigamond Community College and is employed at UMass Medical School. The groom is a student at Tufts University School of Dentistry. . . . **Richard McNamara** and Mary G. Snyder on June 8, 1980 in Belmont, Massachusetts. Mrs. McNamara, a Westfield State College graduate, is a social worker for West Suburban Elderly Services, Waltham, Mass. Her husband works for Turner Construction, Boston. . . . **David J. Thibodeau, Jr.** and Mary J. O'Donnell on June 21, 1980 in Warwick, Rhode Island. The bride is a magna cum laude graduate of Anna Maria College and a substitute teacher in Warwick. The bridegroom is employed by Sanders Associates, Nashua, N.H. . . . **William H. Walton** and **Patricia A. Tracy** in Worcester on May 31, 1980. Mrs. Walton is a fire protection engineer with the Kemper Group in North Quincy, Mass. Her husband serves as a geotechnical engineer at Chas. T. Main, Inc., Boston. . . . **Charles S. Winters** and Ann M. Prew in Pawtucket, Rhode Island on August 9, 1980. The bride graduated from LaSalle College and attends graduate school at Catholic University. The groom is with Electrack, Inc., Hyattsville, Md.

Currently, **Bernice Albetski** is a programmer-analyst at American Company in Greenwich, Conn. . . . Navy Ensign **Bramwell Arnold, Jr.** has reported for duty with Attack Squadron 122, Naval Air Station, Lemoore, Calif. He joined the Navy in June of 1978. . . . **Carl Blomberg** is now employed at Henley Lundgren in Shrewsbury, Mass. . . . **Robert Brosnahan** works as a project engineer at Richards Manufacturing Corp., Memphis, Tenn. He recently received his master's degree in bioengineering from Clemson University. . . . **Gary Davis** is a senior systems analyst for Dialcom, Inc., of Silver Spring, Md. . . . **Stephen Dudzik** is with Vitro Laboratories, Silver Spring, Md. . . . This year, **Richard Dziura** received his MSEE from WPI. He works as a development engineer for GE's Lighting Systems Division in Hendersonville, N.C. . . . **Paul Gifford** serves as an estimator at Daniel Construction Co., Greenville, S.C. . . . **Robert Grochmal** is studying for his MSEE at RPI. He continues as an Edison engineer at GE in Pittsfield, Mass.

Paul Gudelski works as a highway engineer II in the Bureau of Construction Inspection for the State Highway Administration, Salisbury, Md. The Gudelskis have two children. . . . **John Hannon,** an engineer with du Pont, was transferred to Martinsville, Va. in March. He and his bride, Kathy, reside in Collinsville. They were married in May. . . . **Erik Hedberg,** presently as MS student at the University of Miami, will enter Duke University in December to study for his PhD. . . . **Ruth Anne Heselbarth** is a staff accountant with Peat, Marwick, Mitchell & Co., a public accounting firm in Boston. She passed the CPA exam in May. She has an MS in accounting from Northeastern University and is taking night classes for her MS in taxation at Bentley College. . . . In January, **Peter Hunt** was promoted to first lieutenant in the USAF. He serves as a mechanical systems engineer for the Titan III at Vandenberg AFB, Calif. . . . **Leonard Lariviere** is involved with microwave tower design at Western Electric, North Andover, Mass. . . . **Kevin O'Donnell** continues as a graduate student at the Institute of Optics at the University of Rochester. . . . **Rory O'Connor** is now software editor for *Computer Business News.*

Michael O'Hara holds the post of project engineer at 3M Company in St. Paul, Minn. . . . **Ernest Poulias** is employed as a manufacturing engineer at Combustion Engineering, Warehouse Pt., Conn. . . . **Bruce Rutsch** is a senior engineer at Sweda International in Pinebrook, N.J. . . . **Allan Schweber** serves as division equipment coordinator at the Southland Corporation in Alexandria, Va. . . . **Forrest Titcomb** has received an MS degree from MIT. He belongs to Pi Tau Sigma. . . . **Craig Vickery** holds the position of engineering technical writer at Pratt & Whitney Aircraft, East Hartford, Conn. He is also enrolled in the MSME program at RPI's Hartford Graduate Center. . . . **John Wallace,** who has an MS from Carnegie-Mellon, serves as a member of the technical staff at Bell Labs, Naperville, Ill. . . . **Wesley Wheeler,** a project engineer with Exxon Research/Engineering Co., Florham Park, N.J., is currently on assignment to Esso Engineering (Europe) Ltd. in Surrey, England. . . . **Raimond Winslow** continues at Johns-Hopkins School of Medicine in the department of biomedical engineering. He is working on his doctoral degree in biomedical engineering.

1979

Secretary
James Manchester
625 Main St.
Reading, MA
01867

Representative.
Donald O. Patten, Jr
27 French St.
Hingham, MA
02043

▶*Married:* **Andre G. Labrecque** and Cheryl A. Vaughan in Worcester on June 28, 1980. The bride, an executive medical secretary, graduated from Salter Secretarial School. Her husband is in production management at Armstrong Cork Co., Lancaster, Pa. . . . **David J. Lodigiani** and Doreen P. Schultz on September 13, 1980. Mrs. Lodigiani is a Becker graduate, and works at Fitchburg State College as a medical assistant.

. . . **Donald H. Mitchell** to Rosemary L. Oshana on August 9, 1980 in New Britain, Connecticut. Mrs. Mitchell graduated from Becker and has been employed at Farmington Convalescent Home and Rest Home. Her husband works for Public Service Co. of New Hampshire at Manchester. . . . **Robert P. Reed** to Suzanne M. Lavoie in Auburn, Massachusetts on April 19, 1980. The bride graduated from Salter Secretarial School. She is with the physiology department of the University of Massachusetts Medical School in Worcester. The bridegroom is a product engineer at Wyman-Gordon, North Grafton. . . . **John P. Sasonoff** and Kathleen M. Cooney in Billerica, Massachusetts on May 10, 1980. An alumna of Boston College School of Nursing, Mrs. Sasonoff is now employed in the Tempo program at Massachusetts Hospital School in Canton. Her husband has a BSEE from Manhattan College and an MSEE from WPI. He is a senior engineer with Raytheon in Wayland. . . . **David J. Sheridan** and **Joyce A. Poulton** on May 31, 1980 in Westport, Massachusetts. The bride is a mathematician. The groom is a second lieutenant in the U.S. Army. Presently, the couple is living in Vincenza, Italy. . . . **Felix E. Vargas** and Maura C. Scanlon on April 12, 1980 in Jefferson, Massachusetts. Mrs. Vargas works at Kelly Health Care, Worcester. She is a senior at Worcester State. The bridegroom is employed by Chu Associates in Littleton.

John Auger works as a facilities engineer at Parker Hannifin Corp., Ravenna, Ohio. . . . **Jeff Boike** works for U.O.P. in Chicago. . . . **Paul Capstick** graduated from West Point in May. . . . **Stephen DiPietro** is studying for his master's in nuclear engineering at MIT. . . . **Ronald Drewiany** continues with General Dynamics-Electric Boat in Groton, Conn. . . . **David Erickson** is an applications engineer in the Process Instrument Division at Panametrics, Waltham, Mass. . . . **Andrew Faiss** serves an an associate structural engineer for General Dynamics-Electric Boat, Groton, Conn. Faiss had a five-year double major: ocean engineering and management engineering. He has completed his management engineering program and finished everything but his MQP in ocean engineering, and plans to complete the latter this fall. Faiss's was the first interdisciplinary ocean engineering program at WPI. . . . **Michael Falcinelli** is employed as a system engineer at Hewlett-Packard in Lexington, Mass. . . . **David Gehly** works as a process engineer at ITT Semiconductor in Lawrence, Mass.

John Hopkins, Jr. holds the position of vice president at the Alger Corp., Abington, Mass. . . . Presently, **Stephen Hull** is a research fellow at Michigan State University in East Lansing. . . . In June, **Bruce Jenket** completed nuclear power school in Orlando and is now applying his knowledge at Knolls Atomic Lab. in West Milton, N.Y. A Navy ensign, he expects to go to sub school in New London, Conn., early next year. . . . **Steven Kanevski** has been commissioned a second lieutenant in the U.S. Air Force upon graduating from Officer Training School at Lackland AFB near San Antonio, Texas. He was selected for the school through competitive examination and will now go to Mather AFB, Calif. for training. . . . Raytheon Equipment Division, Waltham, Mass. has employed **Robert Manninen** as associate test engineer.

Michael McDonald is an inspecting field engineer at Industrial Risk Insurers in Wellesley, Mass. . . . **James Michaud** continues as a technical representative for the Kemper Group in North Haven, Conn. . . . **Gary Pietryk** works as a fuel systems engineer at Combustion Engineering in Windsor, Conn. . . . **Mark Pittenger** is a junior research specialist in the department of biochemistry and biophysics at the University of Pennsylvania Medical School. . . . **Stephen Prawdzik** serves as a sales specialist in the lighting system department at GE in Hendersonville, NC. . . . **Robert Rosenlof** continues with General Dyanmics, Groton, Conn. . . . **Richard Ruscito** has accepted a position as process supervisor for W. R. Grace, Davison Chemical Division, Baltimore, Md.

Biraja Sahu works as a design engineer at United Tech Corp., Hamilton Standard Division, in Windsor Locks, Conn. . . . **Richard Sewersky** has been named an industrial engineer at Jamesbury Corp., Worcester. . . . **John Skliutas,** who has received his master's degree from RPI, is now an application engineer for the AC transmission studies group of the Electric Utility Systems Engineering Department at GE in Schenectady. . . . **Anthony Weiner** works as a field service engineer for the Surface Division of Midland Ross in Toledo, Ohio.

1980

▶*Married:* **Curtis T. Dudley** and Annette Bachand in Williamstown, Massachusetts on July 26, 1980. The bride attended North Adams State College. Her husband is employed as an electrical engineer at New England Telephone in Framingham. . . . **Scott M. Harvey** and Linda J. Carroll in Barrington, Rhode Island on June 15, 1980. Mrs. Harvey is a senior at Holy Cross. The groom serves as a product engineer at Data General. . . . **Lisa A. Krauss** and Paul W. Del Campo Hartman on June 14, 1980 in Bristol, Rhode Island. The bride is a process development engineer with Procter and Gamble in Cincinnati, Ohio. Her husband is a graduate of Roger Williams College. . . . **Donald W. May** to Kathy A. Seaver of Franklin, Massachusetts on June 14, 1980. Mrs. May graduated from Framingham Union Hospital School of Nursing. The bridegroom is a junior engineer for Raymond International, Inc. . . . **John W. Moriarty** and Carol J. Evon in Waterbury, Connecticut on July 26, 1980. The bride holds a degree is criminal justice from the University of Connecticut. Her husband is with du Pont in Victoria, Texas. . . . **John E. Sjostedt** and Judith W. Gemma in Clinton, Massachusetts on June 7, 1980. The bride, a graduate of Quinsigamond Community College and Assumption, is community relations manager at Van Brode Milling Co., Inc. The groom is with the Washington Works Division of du Pont in Parkersburg, West Virginia. . . . **Henry A. Spang IV** and **Linda S. Landry** in Ocean Point, Maine on June 14, 1980. The bride works at Vought Aircraft Co. and the groom at Texas Instruments in Dallas, Texas. . . . **Thomas A. Storey** and Patricia A. Lowe of Worcester on June 28, 1980. The bridegroom serves as a fire protection engineer at Goodyear Atomic Corp., Piketon, Ohio. . . . **Francis J. Walsh, Jr.** and Barbara J. Granneman on April 12, 1980 in Garden City, New York. Mrs. Walsh graduated from Elmira College. Her husband, who also graduated from Elmira, is employed as a chemical engineer at W.R. Grace & Co., Lexington, Mass.

▶*Born:* to Mr. and Mrs. **Ulrich Steiner** a daughter, Marisa Barbara, on January 9, 1980. Steiner is with Emch & Berger, Consulting Engineers, in Bern, Switzerland.

Jeffrey Andrade has accepted a post as design engineer at Raytheon, Inc., Wayland, Mass. . . . **Allison Avery** is with Stone & Webster, Boston. . . . **Verne Backus** serves as a trainee in the Silicones Division at GE in Waterford, N.Y. . . . Exxon Research & Engineering in Florham Park, N.J. has employed **James Barker** as an engineer in synthetic fuels process development. . . . **Jay Bellingham** is an associate engineer with Potomac Electric Power Co., Washington, D.C. . . . **Kathleen Berthelette** is a management trainee at New England Telephone Co., Providence, R.I. . . . **Robert Blake** has joined United Illuminating in New Haven, Conn. He is a member of the ASME. . . . Eastman Kodak of Rochester, N.Y. has named **David Boger** as a research scientist. . . . **Michael Bowen** works as a construction coordination engineer for Camp Dresser & McKee, Inc. — Alexander Potter Associates in New York City.

Douglas Brand is with the Torrington Co. in Connecticut. . . . **Philip Bryan** was recently named a design engineer at Kodak in Rochester, N.Y. . . . Stone & Webster, Boston, has employed **Candace Buckley** as a junior engineer. . . . **Daniel Buckley** is a software engineer II at Digital Equipment Corp., Marlboro, Mass. . . . **Sharon Buckley** has joined the manufacturing management program at GE in Schenectady, N.Y. . . . **Robert Burghoff** is a tissue culturist in the life sciences department at WPI. . . . **Michael Caputo** has entered the University of Massachusetts Medical School. . . . **Daniel Casey** is now a development engineer at Monsanto Research Corp., Miamisburg, Ohio. . . . **Michael Cheamitru** is with the David W. Taylor Naval Ship Research and Development Center, Bethesda, Md. He serves as a structural engineer. . . . **Gretchen Chipperini** has been named a design engineer at United Nuclear, Montville, Conn. . . . **Edward Chojin** is a manufacturing engineer at Digital Equipment Corp., Natick, Mass.

David Clarke serves as a field service engineer for the Foxboro Co. . . . **Richard Collins** is an associate engineer in the AEP Program at Honeywell in Billerica, Mass. . . . **Peter Connolly** works as a teaching assistant at the University of California at Berkeley. . . . **Christopher Cook** is employed in the technical sales and marketing division at Westinghouse in New York City. . . . **David Craigue** works as an associate design engineer at Hamilton Standard, Windsor Locks, Conn. . . . Megatest Corp., Santa Clara, Calif., has employed **Raymond Cronin** as an applications engineer. . . . **John Cybulski** has accepted a position in the manufacturing management program at GE in Schenectady. . . . **Tom Daniels** serves as a safety analyst in the Nuclear Power Generation Division at Babcock and Wilcox Co., Lynchburg, Va. He belongs to the ASME and the American Nuclear Society. . . . **Michael Davenport** is an assistant engineer at Northeast Utilities in Hartford, Conn. . . . **Thomas De Bellis** holds the post of systems programmer at Columbia University, New York City. . . . **James DeCarlo** is employed by New York Telephone Co. in New York City. . . . **John Dehais** has joined Hamilton Standard in Windsor Locks, Conn. He is an associate engineer in the Environmental Control Systems Department.

Duane Delfosse is a member of the engineering training program (Edison) at GE in San Jose, Calif. . . . **Mark DiLuglio** now works for John M. Geisser Co., Greenville, R.I. . . . **James Drumm** is with Badger America, Inc. in Tampa, Fla. . . . **Oliver Edwards** is employed at Exxon Chemical Company, Florham Park, N.J. . . . **Eric Engberg** is a software instructor at Data General, Southboro, Mass. . . . **Perry Esposito** has joined the marketing support group at Bailey Controls Company in Denver, Colo. The firm is a division of Babcock and Wilcox. . . . **Paul Farineau** serves as a second lieutenant in the Army Chemical Corps. . . . **James Feenan, Jr.** holds the post of project coordinator at Coppus Engineering, Worcester. . . . **Margaret Fernald** works for Teledyne Engineering Services in Waltham, Mass. . . . Bell Labs, Indianapolis, Ind., has named **Gary Fischer** as a member of the technical staff.

Arthur Flagg III is with GTE Sylvania, Needham Heights, Mass. . . . **Richard Forand** is employed as an engineering field representative by Industrial Risk Insurers of Hartford, Conn. . . . **Frances Fortin** serves as a structural engineer at the David W. Taylor Naval Ship Research & Development Center in Bethesda, Md. . . . **Andre Gagnon** works in the safeguards reliability and application division at Westinghouse Nuclear Control Center, Monroeville, Pa. . . . **Michael Gardella** holds the post of associate engineer at Electric Boat in Groton, Conn. . . . **Michael Gariepy** has been employed as a chemical vapor deposition engineer at Analog Devices in Wilmington, Mass. . . . **Brian Gifford** is a project engineer at the Naval Ordnance Station at Indian Head, Md. . . . **Stephen Gilrein** has joined the Chicago District Corps of Engineers. . . . Currently, **Richard Goldman** is attending Cornell University Law School.

Thomas Grimm serves as assistant mechanical engineer at Fluor Mining & Metals, Inc., San Mateo, Calif. . . . **Robert Guarasi** has been employed by the management career system at Crucible Steel-Colt Industries, Midland, Pa. . . . **Annemarie Guay** is a management trainee at New England Telephone in Manchester, N.H. . . . **Robert Guerin** has joined the Aerospace Electronic Systems Department at GE in Utica, N.Y. He is affiliated with the Edison Engineering Program . . . **Robert Guillemette** is a materials engineer at Sikorsky Aircraft, Stratford, Conn. . . . **Candyce Hallock,** who was commissioned a second lieutenant in the U.S. Air Force Reserve in May, is an acquisitions project officer at Hanscom AFB, Mass. . . . **Irvin Halman** works for Kodak in Rochester, N.Y. . . . **Carl Hammer** is with the Outdoor Center-Camp Jewell, YMCA of Metro Hartford, Inc. in Colebrook, Conn. . . . **Michael Herberg** has been named to a post with the GE Silicon Products Division, Waterford, N.Y. . . . **John Herr** is employed as an associate engineer at Lockheed in Burbank, Calif. . . . **James Hinckley** is with Xerox Corp., Rochester, N.Y. . . . **David Hoercher** continues as a graduate student at RPI. . . . **Gary Holland** works as a teaching assistant in the chemistry department at Northwestern University, Evansville, Ill. . . . **Edward Holmes** serves as assistant development engineer at Honeywell Electro-Optics Center, Lexington, Mass.

Western Electric has employed **Thomas Horgan** as a marketing engineer. He is located in Boston. . . . **Arthur Huggard** is with Monsanto in Springfield, Mass. . . . **David Huhtala** holds the post of manufacturing manager at GE in Lynn, Mass. . . . **Brian Huntley** is in the master's program at WPI. . . . **James Idelson** has joined LTX Corp. in Newton Highlands, Mass. He is an applications engineer-international. . . . **Bruce Jacobson** is a design engineer for special equipment at Photopanels of New England, Princeton, Mass. . . . **Anthony Jannetta** is with Harris Corp. in Rochester, N.Y. . . . **Matthew Johnson** works in the linear test system group at Teradyne Co., Boston. . . . **Chandrashekhar Joshi** is a graduate student at MIT. . . . Currently, **Richard Jundanian** is working for his master's degree at WPI. While an undergraduate, he developed a rate-pressure product computer. The device, now in the operating room at UMass Medical School, is used by surgeons during the complex and critical procedures of open-heart surgery and tells the surgeon and anesthetist how strong the heart is. At WPI Jundanian is working on a more refined version of the computer. The NSF has asked him to build an artificial heart which will be used in research into blocked arteries. In the future, he hopes to build an artificial pancreas for diabetics.

School of Industrial Management

Edward Eidt, '53, a former federal mediator in Worcester, is now retired and living in Bushnell, Fla.

Wade Cloyd, '64, who joined Raybestos-Manhattan in December, has been named vice president of communications. In his new post, he is responsible for all activities of the firm's newly-created Communications Division. He will be concerned with environmental affairs, government relations, investor relations, internal corporate communications, community relations, and all advertising for the corporation. Previously, he was director of public and governmental affairs at the firm.

Paul Granquist, '67, has been appointed executive vice president of Thomas Smith Co., Worcester. He is responsible for general operation of the company. In 1959, he joined the firm as cost accountant. Prior to his promotion, he was vice president of administration. The company manufactures custom metal stampings, industrial fasteners, rubber products and gaskets. Granquist has attended the evening divisions of Worcester Junior College and Clark University.

Currently, **Frank Gustafson, '71,** serves as senior product engineer at Bay State Abrasives-Dresser Industries, Westboro, Mass. He belongs to the Professional Engineering Society.

Recently, **John Fitch, '74,** was appointed manager of purchasing at Bay State Abrasives in Westboro, Mass. In 1950 he began work at the company. Before his promotion, he had been purchasing agent. He is a past chairman of the Upton Water Commission and the Upton Housing Authority.

Henry Mossman, '74, has been named director of engineering operations at Bay State Abrasives, Westboro. With Bay State since 1953, he was serving as the division's chief engineer at the time of his most recent promotion. In his new post, he directs all plant engineering functions and has supervisory responsibility for maintenance, and the machine shop. He has served as president of the Greater Marlboro Programs Inc. and as a member of the Marlboro-Westboro Mental Health Area Board.

Carl Harris, '75, was promoted to manager of tooling and design at Centronics Data Computer Corporation in Hudson, N.H. He has been with the company for two years. Earlier, he had been with the Thomas Smith Company, Worcester for ten. He has an extensive background in all phases of die design and pressroom operations. In his new post, he is in charge of all die design, N/C programming, tool room activities and facilities for the Fabricated Products Division.

Natural Science Program

The Northbridge (Mass.) School Committee has appointed **Conrad Bibeault, '68,** to teach physics and chemistry at the high school starting this fall. He had taught both subjects at Holy Name Central Catholic High School in Worcester since 1962, and had served the school as chairman of the science department. He has a degree from Providence College and has taken graduate courses at Holy Cross and Framingham State.

Clifford Allo, '70, is an associate professor of law at the University of Detroit School of Law. Also, he is a consultant on Workers' Compensation law and costs to Michigan UAW. In 1978, he ran the Detroit Free Press International Marathon in 2:46:26. . . . **Georges Caplette** teaches science in Lincoln, R.I.

Deborah Pietro, '78, holds the position of manager of system design and development for Education Service Group, Inc., Weeks Mills, Me.

Lester H. Carter, '09, passed away on June 20, 1980 in Gardner, Massachusetts. He was 93 years old.

The former owner of Greenwood Brothers (Insurance), he sold the business and retired in 1964. Previously, he had been with Baxter D. Whitney & Son, Heywood-Wakefield, and Florence Stove Co. He became affiliated with Greenwood Insurance in 1936.

Mr. Carter was born on Nov. 16, 1886 in Gardner. He received his BSME from WPI and belonged to the Masons, the American Legion, and the Elks. In World War I, he was a lieutenant in the A.E.F.

Frederick P. Church, '15, died in a nursing home in Malden, Massachusetts, on August 7, 1980. He was 88 years old.

Born in Norwich, Conn. on Dec. 20, 1891, Mr. Church was employed before his retirement in the design division at Stone & Webster. He had also worked for A. B. Reed Engineering Corp., the business office of Malden Hospital, and the Foxboro Co. He was an Army veteran of World War I.

A member of many organizations, he was affiliated with the Masons, the Shrine, the Appalachian Mountain Club, and the Shakespeare Festival Foundation, as well as the Schubert Club, which is a choral group. He was a past high priest at the Tabernacle Chapter of Malden.

Mr. Church belonged to Phi Sigma Kappa, and graduated as an electrical engineer. He was a former member of the WPI Alumni Council, and a past president of the Boston chapter of the Alumni Association.

Horace Trull, '16, died at his home in Dudley, Massachusetts, on June 1, 1980.

He was the owner of Trull Lumber Co. from 1935 until 1972, when he retired, and sold the company to his son. Earlier, he had been with Reed & Prentice Co., Bethlehem Steel, Pattison Coal & Lumber Co., and Reed & Prince.

Mr. Trull was born on Nov. 6, 1891 in Woburn, Mass. He was a member of the Masons, the Dudley School Board, and the Webster Sailing Association, as well as an incorporator of the Webster Five Cents Savings Bank. In 1916, he received his BSME from WPI.

Charles E. Heywood, '17, a retired chief service engineer from the Elastic Stop Nut Corp. of America, died unexpectedly on July 13, 1980 in Colebrook, New Hampshire.

He was born on Feb. 7, 1894 in Milwaukee, Wis. In 1917, he received his BSME from WPI. Among his employers were the Society of Automotive Engineers and Chance Vaught Aircraft Co. In 1954, he retired from the Elastic Stop Nut Corporation of America.

Long interested in the preservation of unique natural areas, Mr. Heywood was the former president of the Maine chapter of the Nature Conservancy. In Maine during the 1960s, he helped establish public ownership and use of Wight Brook Step Falls in Newry, Turtle Island, and other coastal islands. Other areas he helped preserve were the Springvale rhododendron stand, Grafton Notch State Park, and Katahdin Iron Works State Historic Monument. He was active in church work.

He was the first president of the Bethel (Me.) Historical Society, and belonged to the Seminole Club of Crystal River, Fla., and the Crystal River Power Squadron. He wrote the *History of Upton, Me.*

Alexander W. Caird, '18, of Braintree, Massachusetts, died on February 15, 1980.

He was born on June 15, 1895 in Chicago, Ill. Later he became a member of the Class of 1918. Among his employers over the years were Stone & Webster; the American Oil Co.; and Fay, Spofford, & Thorndike. He held degrees from Harvard and MIT, and belonged to ATO.

Richard A. Heald, '20, former president of Heald Machine Co., Worcester, died at the Memorial Hospital on June 17, 1980. He was 80.

Mr. Heald was president of the firm from 1949 to 1955, when the company was sold to Cincinnati Milacron. He served as chairman of Heald's board of directors from 1955 until he retired in 1964, following 45 years of service. Before becoming president, he had also been treasurer of the company.

He was born on July 2, 1899 in Barre, Mass., and later studied mechanical engineering at WPI. A well-known amateur photographer, in 1964, he had a one-man show of color photographs at Worcester Art Museum. His work was shown throughout the Northeast. Civic-minded, he served on the boards of several banking, education, and charitable organizations. He belonged to ATO and was a former Worcester council representative.

Brig. Gen. **James F. Early, '22,** of Baltimore, Maryland, died on March 30, 1980.

A Worcester native, he was born on Feb. 3, 1901. After attending WPI, he entered West Point, graduating with a BS in 1923. Immediately following graduation he joined the U.S. Air Force. He was one of the few officers who served with the Eighth Air Force Service Command in both the European and Pacific theaters during World War II, and he received decorations for his accomplishments in each zone. The decorations included the Bronze Star with an Oak Leaf Cluster, the Legion of Merit with Cluster, and the War Department Commendation Medal.

During his military career, he held a number of posts. At one time, he was chief of the Supply Division, Air Materiel Command, headquartered at Wright-Patterson AFB in Dayton, Ohio. Later he served in the Pentagon. In the 1950s, he was assistant president of Fairchild Engine and Airplane Corp.

C. Francis Weeks, '24, a retired operating engineer from Stone & Webster-Badger Process Division, died on April 26, 1980 in Salt Lake City, Utah, after a long illness.

He was born on April 15, 1901, in Brockton, Mass. In 1924, he graduated as a chemist from WPI. During his career, he was with Fiberloid Corporation, Beveridge-Marvellum Co., U.S. Envelope, and the Badger Process Division of Stone & Webster Engineering Corp. At one time, he was a chemical construction enginer traveling in Europe, Iran, and Africa.

Arthur V. Houle, '25, retired senior vice president of Sears Bank & Trust Company, Chicago, died on June 17, 1980 at his home in Winona, Minnesota.

He was associated with the bank for 25 years, retiring in 1966 as senior vice president. Following his graduation as an electrical engineer from WPI, he was employed at New York Edison Co., and later at Cooper Union Institute of Technology, and South Side Savings Bank & Trust Co., Chicago.

A native of Millbury, Mass., he was born on Aug. 20, 1900. He belonged to Tau Beta Pi and Robert Morris Associates.

Howard G. Lasselle, '26, of Westwood, Massachusetts, died on March 7, 1980. He was retired vice president of New England Power Service Co.

In 1927, he joined the power company as a meter tester in Worcester. Increasingly responsible posts in the New England Electric System, included that of assistant superintendent of distribution in Providence and executive assistant in Boston. In 1956, he was named system distribution engineer and two years later, vice president of New England Power and general purchasing agent for New England Electric System companies. He retired in 1969 following 42 years of service.

Mr. Lasselle was born on May 17, 1904 in Berlin, Mass. In 1926, he received his BSEE from WPI. He belonged to the Providence (R.I.) Engineering Society and the National Purchasing Agents' Association.

Charles MacLennan, '27, passed away on July 20, 1980 in Halifax, Nova Scotia after a brief illness.

He was born in River John, Nova Scotia, Canada on May 23, 1903. In 1927, he received his BSEE from WPI. Following graduation, he spent a short time with Brooklyn Edison, then several years at New England Power in Millbury, Mass. In 1935, he went to India, where he progressed to the post of manager at Tata Hydro Electric Co. After twenty years, he moved to New York, where he worked for American and Foreign Power Co., holding a five-year assignment in Brazil. Later, while with the World Bank in Washington, he took a post in South Africa. His final full-time job was with Harza Engineering in Chicago.

In retirement, he was associated with Canadian Executive Services in a consulting capacity. He also devoted time to his dream of harnessing the high Bay of Fundy tides. With the help of a professor from England and Baron Rothschild, he finally convinced the dominion and province to plan a pilot plant. At the time of his death, Charlie was writing a book on his 50-year struggle to harness the tides.

Always generous, he donated part of his large River John property to the post office for a building plot, and gave another building lot for a retirement home for senior citizens, which he sponsored.

Emmett A. Thrower, '27, retired purchasing agent on the corporate staff of U.S. Envelope Co., died July 22, 1980 in Springfield, Massachusetts. He was 75.

A native of Gardner, Mass., he was born on Aug. 28, 1904. In 1927, he graduated as a mechanical engineer from WPI.

Mr. Thrower joined USE in 1928, in the paper department, and he was named head of the local purchasing department in 1944. He was appointed purchasing agent to the corporate purchasing staff in 1965. In 1969, he retired. During World War II, he was a lieutenant in the Massachusetts State Guard.

He was a 32nd degree Mason, and belonged to the Eastern Star, the Sons of Union Veterans, SAE, and the Congregational Church. Formerly, he was a member of the National Association of Purchasing Management, as well as past president of the Connecticut Valley Chapter of the WPI Alumni Association. He was the brother of **Alvin Thrower, '30**.

Richard J. Stone, '29, died on June 10, 1980 in Monadnock Community Hospital, Jaffrey, New Hampshire. He was 72 years old.

He was born on Jan. 8, 1908 in Worcester. In 1929, he received his BSME from WPI. During his career, he was associated with Rockwood Sprinkler Co., Employers' Liability Assurance Corp., American Steel & Wire Co., A. L. Stern Co., and American Steel & Wire. From 1940 to 1945 he was with the War Department.

Other employers included C.F. & I Steel Corp. and the Wickwire Division of the Colorado Fuel & Iron Corp., New York City. In 1970, he retired as assistant to the president of Lawler Automatic Controls, Inc., Mt. Vernon, N.Y.

Mr. Stone belonged to AEPi, ASME, and Sigma Xi. He served as past chairman and secretary of the Jaffrey Board of Adjustment, and he was involved in the Neighbors Helping Neighbors organization.

F. Parker Smith, '30, passed away on May 11, 1980 in Glendora, California, after suffering a stroke on May 8th.

A native of Geneva, N.Y., he was born on Dec. 23, 1906. He graduated as a mechanical engineer in 1930. Among his employers were Gilbert & Barker Mfg. Co., West Springfield, Mass.; Hillhouse & Taylor, Willimantic, Conn.; Reda Manufacturing Co., Chicopee, Mass.; and Lockheed Aircraft, Burbank, Calif. For a number of years, he was a distributor of auto supplies in California.

Mr. Smith belonged to Phi Sigma Kappa. He was the brother of **Charles Smith, '35.**

Edgar A. Phaneuf, '31, of Southboro, Massachusetts, a retired research engineer, died in Framingham Union Hospital on July 13, 1980. He was 73.

In 1931, he graduated as an electrical engineer. After graduation, he was with E. A. Phaneuf Construction Co. for several years. He joined the Metropolitan (Boston) District Water Supply Commission in 1936. After serving as an associate electrical engineer for the U.S. Navy at Quonset Point, he worked at Telechron. For 24 years, he held the post of research and development engineer at GE in Ashland before retiring in 1962. He was associated with GE's Clock and Timer Department in the Dental Health Section.

An inventor who held many patents, Mr. Phaneuf was awarded GE's Phillip J. Cordiner Award for excellence in engineering. He belonged to Sigma Xi, served on the Southboro Advisory Board, his church building committee, and as a scoutmaster.

Curtis M. White, '32, of San Diego, California, died recently.

He was born on June 24, 1909 in Gardner, Mass., and later became a member of the Class of 1932. His employers included the Florence Stove Co., the Aviation Corp., Welbilt Stove Co., and Gray Manufacturing Co. He also worked for G. Fox & Co., Hartford, Conn., and General Office Utilities, Chicago, Ill., from which he was retired. He belonged to Theta Chi.

Allan R. Catheron, '34, a former Foxboro Company systems research engineer, died at his home in Concord, Massachusetts on June 17, 1980.

At Foxboro, he was involved in the development of pilot process equipment and industrial measurement and control devices. He joined the company in 1936, and was a member of the research department since 1937, except for a change to ordnance production engineering during the war years. He transferred to the STS group as a systems research engineer in 1968. In 1975, he retired, but remained active as a company consultant.

Mr. Catheron was chairman of the Automatic Control Division of the ASME, a member of the Basic Engineering Policy Board, and the Communications Board, to name a few of his ASME responsibilities. He conducted college seminars on problems of industrial measurement and control. Among his various patents were those for a rate of climb (change) meter and a self-adjusting electrical controller. He wrote a number of articles, as well as a chapter on pneumatic components in McGraw Hill's *Control Engineers Handbook.*

He was born on Aug. 25, 1910 in Boston. In 1934, he received his BSME. He belonged to Phi Gamma Delta and was a fellow of the ASME.

James A. Lane, '36, one of the first design engineers to work on the Manhattan Project in World War II, died on June 7, 1980 in Annapolis, Maryland. He was 66 years old.

At the time of his death, he was a staff member at the Institute for Energy Analysis (IEA). For many years, he had been a top staff member at Oak Ridge (Tenn.) National Laboratory, and he was largely responsible for establishing Oak Ridge as a major center of nuclear research following World War II.

Herman Postma, the current director of Oak Ridge National Laboratory (ORNL), has said, "Jim Lane was one of the charter members of ORNL and among the first to recognize and push the commercial potential of nuclear energy. He was recognized for that leadership in the U.S. and worldwide and was sought after for his insights and expertise by many countries."

Mr. Lane was born on Jan. 12, 1914 in Worcester. He received his BS in chemistry from WPI in 1936 and his master's degree in 1938. He did postgraduate work as an international exchange fellow at the University of Gottingen in Germany and at the University of Delaware.

During his career, he was with du Pont, the University of Chicago (Manhattan Project), and Clinton Laboratories, as well as the U.S. Atomic Energy Commission, Washington, D.C., where he served as chief of the reactor evaluation staff in 1952. In 1953, he was back in Oak Ridge as director of the Reactor Experimental Engineering Division. While at ORNL, he led teams to help develop nuclear power in Brazil, Egypt, Israel, and Pakistan.

In 1972, he became a consultant with the International Atomic Energy Agency in Vienna, Austria, where he lived until 1975. He spent 1975 back at Oak Ridge, from which he retired in 1976. He returned to the IAEA in Vienna between 1976 and 1978. His last post was with the IEA.

Mr. Lane belonged to Lambda Chi Alpha, Sigma Xi, and Tau Beta Pi. He was a fellow of the American Nuclear Society.

In addition to his engineering work, he was interested in tennis and was an avid sportsman. He had the reputation of being "the best badminton player in the city." He enjoyed sailing, ballroom dancing, and coin collecting.

John Higginson, '37, died on March 29, 1980 in an automobile accident in Iraan, Texas. He was 64.

He was born on Aug. 10, 1915 in West Haven, Conn., and graduated as a mechanical engineer in 1937. During World War II, he served with the U.S. Navy as a lieutenant commander in submarine design and testing. For many years, he was with Thiokol Chemical Corporation in Utah, where he was employed as general manager and later as special assistant to the vice president, before going on medical leave in 1976.

Mr. Higginson was a member of the board of trustees of Weber State College, and he belonged to the Brigham City Chamber of Commerce, Lambda Chi Alpha, and the Rotary. He was a life member of the Elks.

Norman C. Bergstrom, '42, a quality assurance supervisor at the Gary (Ind.) Works of U.S. Steel Corp., died on June 2, 1980 in Merrillville, Indiana. He was 59 years old.

For eight years at the Gary Works, he was a quality assurance supervisor in the blast-furnace and raw materials division. Previously, he had worked for U.S. Steel Corp., in Worcester, and had been a works chemist in Duluth, Minn.

Mr. Bergstrom was born on Sept. 29, 1920 in Worcester. He joined American Steel & Wire (U.S. Steel) following graduation as a chemist in 1942. He was a member of Phi Sigma Kappa, the A.C.S., the Society for Applied Spectroscopy and the Masons.

Richard W. Russell, '44, a class agent for the Class of 1944, died on May 12, 1980 in California while on vacation.

He was born on Jan. 4, 1923 in Philadelphia. Upon receiving his BSEE, he joined Lockheed Aircraft Corp. Later he received his MBA from Harvard Business School, and became affiliated with Lybrand Ross Bros. & Montgomery in Los Angeles. At the time of his death, he was a partner in Coopers & Lybrand in Washington, D.C.

A certified public accountant, Mr. Russell belonged to the American Institute of Certified Public Accountants, and the California State Society of Certified Public Accountants. He was active with the Boy Scouts, having served on the executive board of the Los Angeles Area Council. He belonged to Lambda Chi Alpha and was in the USNR during World War II.

Philip J. O'Connor, '52, development manager at Ashland Chemical Co., died at his home in Columbus, Ohio, on June 12, 1980.

During his career, he was with General Chemical of Allied Chemical, Catalin Corp. of America, and Ashland Chemical. He served two years in the U.S. Coast Guard.

Mr. O'Connor was born on Jan. 21, 1928 in Warren, Ohio. In 1952, he received his BS in chemistry from WPI. At Ashland Chemical he was involved with marketing and sales. He was a member of Phi Kappa Theta, and he had served as a class agent.

Roger J. Cameron, '57SIM, died at his home in Chicago Heights, Illinois on May 23, 1980. He was 65.

He retired as manager of engineering administration for Pullman Standard in Chicago last year following twenty years of service.

A Worcester native, he lived in Worcester for forty-five years before moving to Illinois twenty years ago.

James J. Taparowsky, '69SIM, died on June 8, 1980 at the Memorial Hospital in Worcester at the age of 62.

He was a chief engineer for New England High Carbon Wire Corp. in Millbury, Mass., where he worked for 38 years. Last year, he retired.

Mr. Taparowsky belonged to St. Andrew the Apostle parish and its Men's Club, Worcester County Bee Keepers' Association, Boston Mineral Club, New Haven Mineral Club, Canadian Micro Mineral Association, New England Micro Mounters, Singletary Rod and Gun Club, and the National Rifle Association. He was a past president of the Worcester Mineral Club.

During World War II, he was in the Army Signal Corps. A Worcester native, he graduated from Clark in 1940, and from WPI's School of Industrial Management in 1969.

David K. Ramsden, '77, a junior at the Illinois College of Podiatric Medicine, died in Chicago of injuries sustained in an auto accident on June 5, 1980. He was 25.

Born in Providence, R.I., on April 24, 1955, he later enrolled at WPI. In 1977 he received his BS in life sciences. He belonged to the Baptist Church.

U.S. POSTAL SERVICE

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

1. TITLE OF PUBLICATION	A. PUBLICATION NO.	2. DATE OF FILING
THE WPI JOURNAL		10/14/80

3. FREQUENCY OF ISSUE	A. NO. OF ISSUES PUBLISHED ANNUALLY	B. ANNUAL SUBSCRIPTION PRICE
Quarterly plus catalog issue in September	5	0

4. LOCATION OF KNOWN OFFICE OF PUBLICATION *(Street, City, County, State and ZIP Code) (Not printers)*

Boynton Hall, Institute Road, Worcester, Worcester County, Massachusetts 01609

5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS *(Not printers)*

Boynton Hall, Institute Road, Worcester, Worcester County, Massachusetts 01609

6. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR

PUBLISHER *(Name and Address)*

Worcester Polytechnic Institute, Worcester, Massachusetts 01609

EDITOR *(Name and Address)*

Russell Kay, Worcester Polytechnic Institute, Worcester, Massachusetts 01609

MANAGING EDITOR *(Name and Address)*

none

7. OWNER *(If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be giving. If the publication is published by a nonprofit organization, its name and address must be stated.)*

NAME	ADDRESS
Worcester Polytechnic Institute	Worcester, Massachusetts 01609

8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES *(If there are none, so state)*

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none	

9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES *(Section 132.122, PSM)*

The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes *(Check one)*

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10. EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES PRINTED *(Net Press Run)*	21,900	30,000
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES	0	0
2. MAIL SUBSCRIPTIONS	0	0
C. TOTAL PAID CIRCULATION *(Sum of 10B1 and 10B2)*	0	0
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	21,416	29,504
E. TOTAL DISTRIBUTION *(Sum of C and D)*	21,416	29,504
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING	484	496
2. RETURNS FROM NEWS AGENTS	0	0
G. TOTAL *(Sum of E, F1 and 2—should equal net press run shown in A)*	21,900	30,000

11. I certify that the statements made by me above are correct and complete.

SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER

J. Russell Kay, editor

12. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES *(Section 132.121, Postal Service Manual)*

39 U. S. C. 3626 provides in pertinent part. "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."

In accordance with the provisions of this statute, I hereby request permission to mail the publication named in Item 1 at the phased postage rates presently authorized by 39 U. S. C. 3626.

SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER

(See instructions on reverse)

Winter 1981

WPI journal

Winter 1981
WPI journal

8 4/4

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On the cover: A restful wintry scene at Higgins House

Editor: H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Designer: H. Russell Kay

Typesetting: County Photo Compositing, Inc., Jefferson, Mass.

Printing: Davis Press, Inc., Worcester, Mass.

Alumni Publications Committee: Donald E. Ross, '54, chairman; Robert C. Gosling, '68; Sidney Madwed, '49; Samuel W. Mencow, '37; Kathleen Molony, '77; Stanley P. Negus, Jr., '54.

Address all correspondence to the Editor, *The WPI Journal*, Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

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The WPI Journal (USPS ISSN no. 0148-6128) is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second Class postage paid at Worcester, Massachusetts.

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HOMECOMING

for 1980 was a rather special weekend. Scheduled earlier in the season than in previous years, it was blessed with good weather and entertained by a WPI football team that could do the job! Here are some of the highlights of Homecoming 1980, as seen through the eyes of several of the participants.

PLANNING A PARTY can be a lot of fun, especially when your guests pay their own way and a professional staff is in place to help with the details. So when Jim Fee, chairman of the Class of '65's 15th Reunion, asked if I would like to serve on his committee, I was quick to say yes. This was our class's first big reunion since graduation.

Jim, my old fraternity brother and present-day jogging buddy, has a reputation for cutting red tape—lengthwise. But he did a good job of putting together a Reunion Committee, with Ron Greene, Jake Jacobson, Bill Lightfoot, Steve Rudnick, himself, and me. Starting in the fall of 1979, the committee planned, plotted, and worked to make our 15th live up to what people might expect from WPI's centennial class. And judging by the turnout and the reports that filtered back to me, no one was disappointed.

Any report of the day would have to center on Higgins House, the stately 'tudor' mansion, next to the soccer field, that only Mrs. Higgins got to enjoy during our undergraduate days. Now it is part of the campus, and on Homecoming Saturday was headquarters for the Class of '65 Reunion. Guests registered in the lobby, drank bloody marys on the sun porch, and had brunch beneath the high-beamed ceiling of the great hall. There were straw hats for classmates, flowers for their guests, Reunion yearbooks for everyone, and balloons for whomever got to them first.

Higgins House was also the scene for the brief program that followed brunch. Jake Jacobson, who had mailed a questionnaire to class members over the summer, presented the results, some of which were surprising: 64 percent of our classmates are still employed as engineers; 85 percent would, if they

had it to do over again, get their undergraduate education at WPI; 55 percent married their high school or college sweetheart; 81 percent do not smoke; and 83 percent are for Reagan *Editor's note: this was written prior to the 1980 election.*

All Jake's statistics, plus the autobiographies of 86 classmates, are bound into the Reunion yearbook. (If you weren't there and didn't get one, a few copies are still available from the Alumni Office for $5.00.)

Jake also made a few awards: to **Phil Ryan**, for losing the most hair since graduation; to **Gene Dionne**, for traveling the farthest (from Los Angeles) to attend; to **Phil Bachelder** and **Jack Kelley**, tied in the category of most children, with four each; and, special awards to the two faculty members cited most often in the questionnaire responses as 'most memorable': **William Grogan** and **John van Alstyne**.

Next, Jim Fee and I became the 'Not Ready For Skull Players,' presenting the highlights and lowlights of our freshman year. Not all the lines were memorable, but the water balloons were a hit, and we decided not to use the fire crackers. The skit proved once again that, although you are only young once, you can be immature all your life.

From Higgins House, people filed down to the football game and the Class of '65 tent, which stood near the field and offered complimentary drinks. There, more than anyplace else, people got to mix, greet old fiends and faculty, and, under a beautiful autumn New England sky, get caught up on 15 years of experiences.

What is most amazing, perhaps, is the positive attitude this class displays toward life in general. Evidence of that seems to jump from almost every page of the Reunion yearbook, where classmates describe their hobbies, travels, professional achievements, patents, families, community and church activities, and advanced degrees. Almost to a man, they testify to their satisfaction with the way things have worked out. Nils Ericksen wrote it one way: "very proud to be a graduate of WPI." But Charles Dufour may have said it best: "We believe the times have been good to us."

—Pat Moran, '65

Memories of the days when . . . .

. . . . You met hundreds of new people during Freshman Orientation, and were overwhelmed trying to remember all their names.

. . . . You entered the cage ball game, and were trampled by your own team.

. . . . You attended your first class at WPI and panicked because your professor wrote mathematical formulas on the board with his right hand as he erased them with his left.

. . . . You placed your first frantic phone call to your parents to say, "send me some **money!** I already spent everything I had."

. . . . You sat down to take your first exam, and had no idea what the *questions* meant.

. . . . You ran your first computer program, and then spent all night trying to correct the mistakes before your 8:00 A.M. computer class.

. . . . You decided to relax on the quad instead of studying for your fluids exam; after all, you didn't need to study since fluids is just common sense.

. . . . You participated in the Paddle Rush and the Rope Pull, and then wondered why every muscle in your body ached.

. . . . You attended a concert and some athletic events during a weekend the alumni called Homecoming, and then asked why they called it that!

. . . . You went home for Thanksgiving and ate enough food to keep you from starving for six months.

. . . . You shivered as you trudged across the campus during a snow storm, and wondered if the unmerciful wind would push you off the top of the hill. Then you called home to find out how to unlock your car doors once the locks had frozen.

. . . . You slept day and night for the first week of winter break, and then woke yourself only because you thought you had missed a class.

. . . . You attended Intersession and had a chance to enjoy such 'intellectual' courses as "Magic in Chemistry," "Belly Dancing," "Mountaineering," and "Ballroom Dancing."

. . . . You returned for the spring semester and vowed, "THINGS WILL BE DIFFERENT THIS SPRING. I WILL STUDY LESS AND ENJOY CAMPUS LIFE MORE." (And who were you kidding?)

. . . . You attended Spree Day, and all your course work left your mind.

. . . . You began to plan your sufficiency, IQP, and MQP: you even set up a timetable which you would later find difficult to follow.

. . . . You attended Junior Prom Weekend and suddenly realized three years at WPI had passed.

. . . . You finally accepted the fact that your Sufficiency, IQP, and MQP had to be completed—**SOON.**

. . . . You began to prepare for your Competency Exam, and then suddenly Commencement drew near.

. . . . You walked across campus for the last time with your calssmates, received your diploma, and realized your undergraduate days at WPI were over.

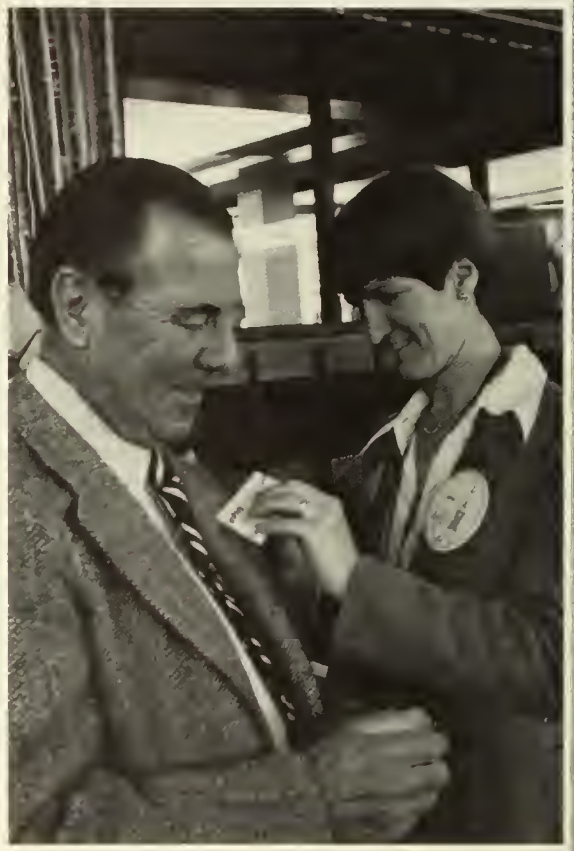
. . . . You attended your first Homecoming as an alumna, and finally understood the meaning of Homecoming.

CERTAINLY each of us has our own individual answer to the question "What Is Homecoming?" Our view of Homecoming may depend on whether we are alumni, faculty, staff, or students of WPI. As an alumna, I feel that Homecoming is a time to meet with many friends from my days at WPI and reminisce about our lives here.

For me, Homecoming is more than a deluge of activites that take place from Friday to Sunday. Each year, the anticipation and excitement of Homecoming begins long before October. My first thoughts of Homecoming focus on the many people I met while at WPI, and the experiences I shared with them. I think of the valuable friendships formed, not only with my fellow studnts but also with administrators, faculty, and staff. All of these people gave me a great deal, not of what they *have* but of what they *are*. Because each experience shared with these people had its own special charm, I cherish every memory and draw joy from the thought of every adventure.

From our days at WPI, all of us take more with us than the intellectual part of our lives here. When we meet at Homecoming, we recall all the academic as well as the social bonds we shared. We talk about keeping in touch during the years between Homecomings, and many of us make promises to see each other frequently in the future. Hope we are able to keep these promises.

— Patty Graham Flaherty, '75



Anni Autio, a junior from Norwood, Massachusetts, works part time during the year in the Alumni Office, from where she has a bird's eye view of Homecoming activities. She offers these thoughts:

HOMECOMING . . . . alumni returning to their alma mater . . . . football game . . . . reunions . . . . rope pull . . . . and more. Is this what it is all about?

Homecoming is a weekend full of activities for both alumni and students. For those who are involved in the preparation of any activity during the weekend, Homecoming becomes a real occasion—extensive planning, suspense as the weekend draws near, running around getting things done, and finally taking part as things happen.

When it finally comes together, Homecoming is really a time to remember: picnic groups spread out around the quadrangle at noontime on Saturday, the Wedge bustling with activity throughout the day with alumni registration, road-race signup, reunions, a pre-game celebration party, and much more.

Being a junior at WPI, I have experienced two previous Homecoming weekends. Freshman year I decided to go home, and sophomore year I worked at the registration desk. It was only then that I realized Homecoming was not just a semiformal dance on Saturday night; it is a weekend for enjoyment! This year, Homecoming was more meaningful because I had a chance to see many of the activities that I had previously overlooked. (And I even found out that, yes, WPI does have a football team!)

—Anni Autio, '82

Glee Club Recordings Available

The WPI Glee Club, which enjoys a high reputation for its musicianship, has, over the past decade, toured and performed in Europe, England, and California. It has also made a number of recordings which have been occasionally available to students and alumni.

Although those past records are out of print, the Glee Club is now planning to distribute tape recordings of their work. These new issues will be available either on cassette or reel-to-reel tape. The sound quality is quite good, the performance level high.

Here are the works which will be available:

From 1970

Two Christmas Carols—arr. Lefevre
1. Quite Pasteur (The stars looked down)
2. Entre le Bocf (Here between ox and ass so calm)

From 1972

The WPI Glee Club with the Skidmore College Chorus, Louis Curran conducting, recorded at Skidmore

Mass for winds, soloists, and chorus—Igor Stravinsky

Come Again Sweet Love—John Dowland
Soon Ah Will Be Done—arr. Dawson
Er est ein Kindike (tenor J. J. Homko)

The Tour to California

WPI Glee Club with the Wheelock College Glee Club

Saints Bound for Glory—anon.

From 1975

The Tour to England recording

WPI Glee Club with the University of Massachusetts Brass Choir, recorded at Trinity Lutheran Church, Worcester

Air de Trompette (Walter Chestnut, trumpet) —Giuseppe Torelli
Missa Salve Regina (tenor P. Arcoma, baritone R. Cummings, bass C. Skinner) — Jean Langlais
Crucifixus—Antonio Lotti
Ain'a That Good News—William Dawson
Sister Mary Worc (baritone C. Skinncr)—arr. Marshall Bartholomew

The Baker's Dozen:

All Kinds of Women—Brachell
Vive l'amour—arr. Shaw
Done Made Mah Vow—Whalon
Good Night Little Girl—Shephcrd
Skye Boat Song (tenor P. Arcoma, baritonc C. Skinner)—Fcnno Heath

From 1976

WPI Glee Club with the Smith College Glee Club, Louis Curran conducting, recorded in Alden Memorial Auditorium, WPI.

Cantata No. 106, Gottes Zcit (God's time is the best time)—J. S. Bach
Ave Vcrnum Corpus—W. A. Mozart
Saneta Maria (Iva Dee Hiatt conducting)—W. A. Mozart
Keep to the Middle of the Road — arr. Bartholomew

The Baker's Dozen:

Hooda Day—arr. Bartholomcw
Landloard Fill the Flowing Bowl—arr. Knox
Where Did You Prcp—arr. Shcpherd
Charlic (bass W. Davics)—arr. Knox
Gonna Build a Mountain—Knox

From 1977

The Tour to Germany and Austria recording

WPI Glee Club, Louis Curran conducting:

Drink to Mc Only with Thine Eycs—arr. Bartholomew
Keep in the Middlc of the Road — arr. Bartholomew
Roll, Jordan, Roll (bass W. Davis) — arr. Bartholomew—Curran

WPI Glee Club with the Regis College Glee Club

Cantique de Jean Racine (Sheila Vogt conducting)—Faure
Jubilate Deo (Sheila Vogt conducting)—Peeters
Saints Bound for Heaven (L. Curran conducting)—arr. Dawson
Every Time I Feel the Spirit (bass R. Vaz, L. Curran conducting)—arr. Dawson
Exckiel Saw de Whcel (tenor J. Willemain, Sheila Vogt conducting)—arr. Dawson
Muss I Denn (Sheila Vogt conducting)—traditional German folk song

WPI Glee Club with the Regis College Glee Club, Louis Curran conducting, recorded in Mechanics Hall, Worcester:

Ecce Enim Ex Hoc Beatum, from the Magnificat—J. S. Bach

From 1979

Let Us Break Bread Together—arr. Heath
The Summer Day—Brahms
Cantatc Dominc—Hasslcr
Laura Lee—arr. Jennings
Steal Away—arr. Bartholomew
Wakc Freshman

From 1980

Inter-Collegiate Musical Council Convention held at WPI

Forget Not My Law (J. Minasian conducting) —Effinger
Kantata, B.W.V. 21, Ich hattc viel Bckummcrnis (WPI Glee Club with the Regis College Glee Club, Louis Curran conducting)—J. S. Bach
Three Blakc Songs (tenor J. Palmer)—arr. Heath
The Heart Worships (tenor W. Guilfoile, Jr.) —Gustav Holst
Yondcr (tenor J. Palmer)—old Russian melody
Black Is the Color of My True Love's Hair— anon.
The Stars Brightly Shining
Wakc Freshman

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Sinkholes!?

Bill Murphy, '22, has only one real problem these days. Sinkholes. You'd think that an 80-year-old Florida resident would be rightfully concerned with more frivolous things, like playing shuffleboard or catching the breezes on a tropical patio. But not Bill!

You see, Bill Murphy is vice president of heavy construction at Gilbane Mills Jones, and currently he's supervising a major project, the Orlando International Airport. He's concerned with all site work, which includes earthwork, canals, all underground piping, bridges, tunnels, roads, parking areas, pile driving, airside concrete aprons, taxiways, extensive refueling systems, and environmental control. So far, there have been few difficulties with construction. Not much rain. Tough, but tolerable summer heat. "We never stopped work," Bill allows. "Even though the sinkholes have been kind of a headache."

Workers at the sprawling airport site firmly believe that Murphy has set his foot on every square foot of ground on the property at least once during construction. He probably has. He's "on duty" daily from early morning into late evening. And he loves every working minute.

"Working is my life," he declares. "I never wanted anything else. When I was 65, nobody mentioned retirement, including me."

At Orlando International, Gilbane Mills Jones' job is construction management. Should a problem crop up, Murphy gets the gist of it on the telephone, then rolls off in his jeep to help solve it. Basically, in such an assignment, he is responsible for the managing of the work listed previously, plus the estimating of the cost and time involved in the project.

His on-site responsibilities last from Monday through Saturday. On Sundays, he does job-related paper work at home and writes many letters to friends and relatives.

By this time, Mrs. Murphy is used to her husband's full-time schedule. "All construction wives are up against it because the hours are so irregular," Bill says.

During their marriage, he and his wife have had only short vacations in the U.S. and Canada. "Years ago we took a two-week trip to Cuba," he reveals. "We have a house in New England, but we don't get up that way very often." Murphy has gotten around, just the same. He has visited five continents and 17 countries on bidding and negotiating trips. For the last 13 years, he's been out of the bidding business. He's too busy getting the company projects completed, then moving on to the next job. Just prior to going to Orlando, for example, he worked on plants in New York, North Carolina, and Georgia.

Bill Gilbane, a college champion boxer and president of the Providence-based firm, believes that Murphy "will keep on going forever." A few years back it was suggested that Murphy might be better off financially if he retired and did consulting work, Gilbane says. Tom Gilbane, chairman of the board and a college wrestling champion, voiced the same opinion. Murphy's response was to keep right on the job.

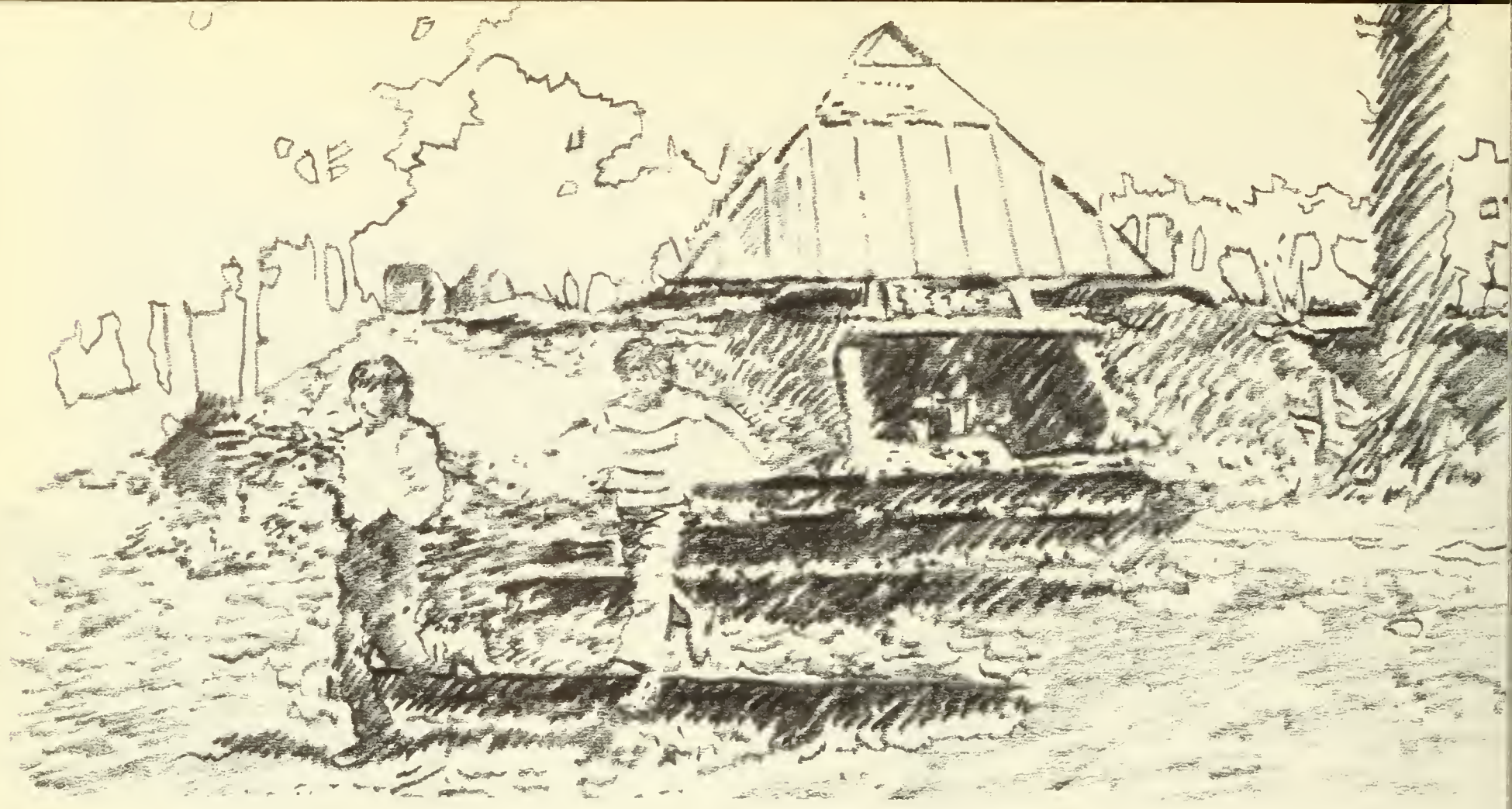
Except for an old knee injury ("torn cartilage from sliding bases") and a bout with a hernia, which Murphy, of course, won, he has virtually never been sick. He claims that the fact that he doesn't smoke or drink, harks back to his days at WPI when he played baseball and basketball.

That trick knee, his legacy from baseball, has kept him in construction all these years. "Now I don't want to leave," he says. "Work and my wife. That's all there is. I don't want to retire and be miserable like so many of my friends."

He confides, "Just between you and me, I would like to keep working as long as I can produce for the company."

It looks like Gilbane Mills Jones will be having its current vice president on the payroll for some time. Murphy comes from hardy stock. His uncle, William "Kitty" Bransfield, was considered to be the strongest man in major league baseball. A more distant relative, Sir Edward Bransfield, was knighted by the Queen of England after he became the first white man to set foot on the Antarctic Continent.

With that kind of ancestry, it's no wonder that Bill Murphy, at 80, can still set a torrid pace.



People who live in glass houses . . .

PRACTICALLY NOBODY gets to live in a glass pyramid. The exeeption? **Aroon Shah, '67,** of Weston, Mass., who reeently moved into a glass pyramid with his wife and two ehildren.

Although Shah's pyramid would be dwarfed beside the Great Pyramid, it is a massive private dwelling aeeording to today's standards. Over 4,500 square feet of futuristie living spaee.

Shah, a senior energy engineer at Polaroid, got together with Architeet John Hagan a eouple of years ago to plan his dream house. "We wanted a geo-solar house," Shah explains. "And Hagan knows how to design a home that relates to the people who live in it, to the environment, and to the earth."

The first step in eonstruction was to ram earth up against the structure, giving it all the advantages of an underground house with none of the disadvantages. The teehnique allows the building to take advantage of two natural sources of heat and insulation—earth and sun. (geo-solar)

The house, which is filled with light and views, is designed so that one always feels on ground level. Skylights softly light interior rooms. All rooms ring the eentral living room which includes a large eonversation pit, planters, and is topped by a lofty 32-ft. glass pyramid. The family room, kitehen, four bedrooms, utility room, and two baths are set into a man-made hill. This sunken arrangement takes advantage of the eheapest insulation, earth, whieh helps keep the house at a steady 55 degrees. Aetive and passive solar systems eontribute to higher temperatures.

The glass pyramid, itself a passive eollector, is the eornerstone of the solar heating system. Wall ducts force the hot air by fans into the floor where it radiates heat into the first floor. The tile and concrete floor eontains two inches of styrofoam insulation and eight inches of rocks to trap heated air. This heating system will be run by a eomputer (to be installed this year) which also will open the vent at the top of the pyramid and adjust the giant shades that line the expansive glass area.

A baek-up system of a gas heater and a wood stove is available for use if neeessary. Heavily insulated walls and an earth-covered roof are part of the unique, energy-saving design.

Not only does Shah's geo-solar home heat and cool its oecupants, it will eventually provide them with year-round food. Cold frames for starting garden plants are built in glass enelosures over the front and back entrances. Besides the cold frames, there are a planter fenee surrounding the eonversation pit and five sunken planters big enough to house future exotic trees. There are auxiliary planters on the seeond floor.

After tending plants in their new home, the family can take turns relaxing in their whirlpool bath, which has a south-facing view and a 150-square-foot window. In spite of this, and other built-in luxuries, Shah feels that the house will ultimately eost no more than others in his area, because of the annual savings in maintenance and heat.

Bottom line: The Aroon Shahs sleep on water(bed) and live in a glass house sunk into a hill and set on stones. They love it.

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1912

Mr. and Mrs. **J. Francis Granger** celebrated their golden wedding anniversary on October 22, 1980. Mr. Granger, who presently serves as secretary of the Massachusetts Highway Association, was city engineer and superintendent of streets in Marlboro, Mass., from 1928 to 1960, when he retired. After retirement, he joined the private engineering firm of Granger, Thompson and Liston. During the last two decades he has been one of the most vigorous men in Massachusetts in the advancement of the public works profession. He has also been very active in Marlboro civic affairs. Mrs. Granger, a Wellesley graduate, holds a master's degree from Columbia. At one time she was supervisor of English at the Horace Mann School at Columbia University. Like her husband, she has been active in Marlboro civic affairs. She participated in the founding of a local Girl Scout troop and has worked with the Red Cross.

1927

Charles Moore has swum 400 miles in Cleveland's Cudell Recreation Center pool from October of 1971 to June of 1980 and has earned eight Red Cross 50-mile certificates.

1929

Mary and **Arthur Gilbert** of Louisville, Ky., recently joined 14 other couples who had been married for over 50 years at a celebration held by Senior Citizens' East. The combined married years of those present was 869! Mary Gilbert recalled that she and Arthur had their first appliances when President Franklin Roosevelt closed the banks.

Arthur Knight is now living in St. Johnsbury, Vt. Recently, when the Fairbanks Weighing Division held its 150th anniversary celebration in St. Johnsbury, the Knights had a ringside seat for the parade at their new address. **Fred Baldwin** and his wife, Millie, joined the Knights for the festivities. Fred took part in the 100th Fairbanks celebration 50 years ago.

Fred McGowan reports that after moving to Florida for his health following an auto accident three years ago, he is now back in Connecticut, at Heritage Village in Southbury. He and his wife, Dorothy, were disappointed in Florida, "so after a year of too much warmth, and not enough to do," they sold their house and came right back to "an ideal year-round climate." Fred continues to collect old American prints and catalogs having to do with early manufacturing in the U.S. He would welcome hearing from others in this field. His address is 563 D Heritage Village, Southbury, CT 06488.

1930

Ed Delano says that he now has a new time trial bike which weighs only 19 pounds. Where to next, Ed?

Harold Hart writes from Lake Montezuma (I like the name) in Arizona that he was sorry he could not make the 50th reunion. He walks a mile or two every day, but would not compete with Delano on the bike. His garden and taking care of the house keep him busy.

Ray Lewis wrote some time ago that he sure enjoyed seeing all the classmates at the 50th. After the banquet Friday evening, they left for Wellesley where his wife also had a reunion. They spent part of last summer at Lake Sunapee, N.H.

Milton Warner has many outside interests, including tutoring two recently-arrived Vietnamese immigrants in the English language and serving on the maintenance committee of the Unitarian Universalist Fellowship of Evansville, Indiana. Marge and he also teach a Sunday School class for junior and senior high school students. In October his first grandchild, Teresa Allison Watts, was born to his daughter, Sally, and son-in-law, Richard Watts. Dick is an actuary with the IRS in Washington, D.C., and Sally is an attorney with the Department of Housing and Urban Development. In March, the Warners attended the marriage of their older daughter, Dorothy, to Lee Charles Robbins. Lee works as an investigator for the Department of Human Services in San Francisco and Dorothy is an adjudicator for the Veterans Administration there.

1931

Idof Anderson, Jr. writes: "Starting my tenth year of retirement here on Cape Cod. Enjoy swimming from May 30th to nearly November 1st. I just seem to be so busy doing nothing, that I don't have time to do anything."

The **Bob Barretts** have just bought a condominium in Longwood, Florida, where they plan to spend most of the winter months. They are located on the shore of Lake Winnipesaukee in Laconia during the summer. While in New Hampshire, they are within 15 miles of their whole family, including five grandchildren. "There is seldom a dull moment!" Recently, Bob and Noriene took a trip to the Far East, stopping off to see **Red Sage** in California. Because of unsettled world conditions, they feel that that trip was probably their last outside of the U.S.

Ed Bayon and his wife, Ruth, are looking ahead to celebrating their 50th wedding anniversary in September. They have two daughters, and nine grandchildren (13 to 22 years), six of whom are currently in college. One boy is studying civil engineering. A year ago, Ed left the management of Tighe & Bond/SCI to his partner and he is now "working into retirement" as a consultant to the firm. Five out of the 34 graduate engineers on staff are WPI graduates, two of whom serve as assistant chief engineers. Ed had the pleasure of renewing a friendship developed at Tech almost 50 years ago when he attended the Boston College-Navy football game this fall with **Frank "Champ" Blouin**, '32. Champ is a retired U.S. Navy vice admiral now living in Washington, D.C., after an exciting and challenging career in the service of his country.

Dud Chaffee writes that he is currently retired in Greensboro, N.C., after having been in charge of operations, maintenance, engineering, and planning on college campuses throughout the east coast during his career. He was associated with Mount Holyoke, Springfield, Middlebury, St. Lawrence, and finally the University of North Carolina, from which he retired. He is an active golfer and stamp collector. Also, he was active in the fund-raising drive for the class 50th reunion gift.

Ted Coe, who lives in Vermont, has purchased six acres of ocean front and tidewater (1000' deep water, 600' tidewater) in Boothbay, Maine. Having decided not to build, he considers the land as a good investment because there is not much property of this type left in Maine. Formerly with Farrel Co., he has been retired for 15 years.

Trustee Emeritus **Al Demont** writes that he and Phyllis have been busy managing two houses and trying to sell one. On Labor Day weekend they attended her daughter's wedding in Boulder. His daughter Diane has a new baby boy named Jordan Albert Kapp, who was christened at his church during its anniversary. The Demonts celebrate their first wedding anniversary on December 29th. Al belongs to the "'70" National Ski Club. Last

year, he was the principal agent in selling a ski lodge at Smuggler's Notch, "where (we) four couples held a happy ten-year partnership before the old gang just moved too far away." Active in his church, he has completed two years' service as senior elder, the highest layman's office. After retiring from GE in 1973, on two occasions he was drafted to run the Schenectady County Community Co-op Program.

Warren 'Bun' Doubleday and his wife, Sigrid, have a retirement home not far from Dot and **Paul Fittz** in Orange, Mass. After Bun retired as a Civil Service employee of the Air Force in 1972, they traveled for a while, but have decided that "it is easier to stay at home." They make maple syrup, cut firewood, mow the lawn, and shovel snow. The Doubledays have three daughters and nine grandchildren (two girls, seven boys). "We can take care of a pretty good-sized turkey at Thanksgiving."

Len Dunn is recovering from a severe stroke that left him hospitalized from February of 1979 to January of 1980. He says, "My wife, Audrie, diligently looks after me, but it's quite a task." Len is located at St. Lambert, Quebec, Canada.

Richard Fairbanks, who is retired from government service writes: "Employed by NACA (now NASA); CAA (now FAA); and the Air Force." He and Viola have been married 48 years and have two daughters and three grandsons.

Fred Farrar has three good reasons for planning to attend reunion. Not only will Fred be celebrating his 50th, his son, Robert, '56, will be on hand for his 25th, while his grandson, Daniel, is a member of the Class of 1984.

Also looking ahead to the 50th, is **John Fletcher**. He and Arlene, his wife of 44 years, are enjoying retirement in South Dennis on Cape Cod, where they have resided for nearly eight years. "We do what we want, when and if we want to." When the **Hilt Fishers**, '30, get to the Cape, they usually visit the Fletchers. John's last job was with Bryant Electric, a division of Westinghouse in Bridgeport, Conn.

Henry Friel holds the post of product manager at Wire Mesh Products in York, Pa.

Wally Gove, local coordinator for the 50th reunion, attended the reunion workshop on Oct. 4th.

George Hansen's son, who is 42, hiked the Appalachian Trail in October. George retired in 1973 from Pratt & Whitney Aircraft. Presently, he lives in a house he built for retirement. It is located in West Willington, Conn., on a paved road, surrounded by woods.

Until last year, **Edwin Haskell** served as part-time chief designer for Chandler Machine Co. Previously, he retired from GenRad, Bolton, Mass. The Haskells have three children and three grandchildren. They have retired to a "lovely adult mobile home park" in Concord, N.H. They have gardens and a yard to care for, and square dance twice a week. "Play in a senior citizens' orchestra occasionally."

Golf and oil painting are hobbies enjoyed by **Frederic Holmes**. In 1972, he retired from Bird Machine Co. following 25 years of service. He was a sales engineer and consultant for the mid-West area for the firm, which manufactures paper-making machinery and centrifugal equipment. He has two sons and five grandchildren.

Trescott "Tres" Larchar, Sr., who lives alone says, "A major effort goes into cooking. I'm not a gourmet cook, but I'm willing to try something new." He claims he maintains a nearly constant weight. Since retiring from Olin several years ago, he's done some consulting. He is active with the Masons, the Senior Citizens' Group, and he attends a few technical meetings. Travel and music are other interests.

Irving Newcomb ran his own cabinet shop until he retired in 1974. He had previously retired from GE. In February, he and his wife celebrate their 48th wedding anniversary. They have three children, four grandchildren, and are located in Center Barnstead, N.H.

Albert Palm writes: "We live 22 miles east of Los Angeles and from our hillside home beneath Mount Wilson Observatory we can see up and down the San Gabriel Valley as far away as Pasadena and the Rose Bowl." In 1975, he was commended by the chief of police for stopping a runaway auto by deliberately ramming it with his own car. Besides his BS, he holds an MS from WPI. During his career, he has been employed by the former Worcester Gas Light Co., American Steel & Wire, and he was a partner in Stidsen & Palm Co. From 1944 to 1960 he was a sales engineer in the abrasives division of Norton Co. From 1960, until he retired in 1974, he was with A.P. deSanno & Son, Inc., Phoenixville, Pa. The Palms' son, Robert, graduated from WPI in 1964. They also have a daughter and four grandchildren.

Good thing **Phil Pierce** retired! He doesn't have enough time for work. In "retirement", he teaches folk dancing, and calls square dances. He keeps improving his house and yard, serves as church treasurer, still "walks" 18 holes of golf several times a week, bowls, and drives for "Meals on Wheels." Once a year, the Pierces travel (Europe, etc.), but are always glad to return home to Monterey, Calif. "Life is great. No snow. No high heat." Phil taught mathematics at the Navy Postgraduate School in Monterey for 28 years. He and Irma have three sons, three granddaughters, and two grandsons.

C.F. "Red" Sage says, "Hope to see you all next June in Worcester!" He admits his red hair is now gray, but declares it is still quite a thatch. Red and Val's son, Dick, has a PhD and is assistant curator in the Veterbrate Zoology Museum, University of California at Berkeley. Tony and Mike farm, make cabinets, and play golf in Oregon. ("Hope to visit them Thanksgiving.") Since 1970, the Sages have managed Pea Soup Andersen's Inn in Buellton, Calif. They've seen it grow from 41 to 97 units. "Too busy to retire." However, if the spirit moves them, they might go into a nearby mobile home.

Early in the year, **Mike Sodano** had some surgery done to correct poor circulation. The right carotid artery was cleansed, then a quadruple by-pass was performed. "Haven't felt so good in a long time." In 1970, he retired from GE, and after staying in Japan for two years, he returned to Scottsdale. Daughter Carole is at the University of the Pacific and John at the Art Center College of Design in Pasadena. Mike swims, and is a licensed ham radio operator. So far, he's made over 100 contacts all over the U.S.A.

After 32 years, **Hurant Tashjian** continues operating his hardware business, Bay State Paint & Hardware Co., in Worcester. "No plans for retirement." The Tashjians have two daughters. Emily is engaged and Gloria is an assistant professor of mathematics at Merrimack College in Andover, Mass. Two years ago, while Gloria was an exchange scientist at the Mathematics Institute, Czechoslovak Academy of Science, Prague, her parents visited her.

Bob Terrill spent 32 years as a commissioned officer in the Armed Forces. He graduated from the U.S. Military Academy and then from flying school at San Antonio. "I was in the Air Force from that time on." He participated in World War II and the Korean war, as a colonel and as a brigadier general, respectively. In 1964, he retired from the service as a lieutenant general. The Terrills were slated to visit their daughter and two grandsons in California over Thanksgiving.

Although retired, **Fran Townsend** claims, "I still can't find time to do all the things I have ahead of me." He hopes to get his eye situation cleared up before the 50th. The Townsends, who live on the Cape at Cotuit, Mass., have two daughters, a son, and eight grandchildren.

Carroll Whitaker serves as cost department manager for the Ames Textile Corporation of Lowell, Mass., where he has been employed for 45 years. "The work is varied and very interesting," he says. For 21 years, he and Eleanor have frequently square danced with various groups and feel that "this wonderful recreation has done a great deal to keep us in good health."

In 1974, **Robert Williamson** retired from Union Carbide after 39 years. He was in sales, production, and industrial engineering in the Consumer Products Division (Eveready). The Williamsons celebrate their 40th anniversary in February. They like to play contract bridge every week with two groups of retired persons. Their daughter and two grandchildren live in Albuquerque. Judy is a registered artist (water color and acrylic) and is working on her master's degree in teaching. Williamson does "kitchen table" model railroading at home. He is treasurer of a sizeable model railroad club.

1932

►*Married:* **Paul E. Nelson** and Mrs. Marion E. Francis in Barnet Center, Vermont on September 21, 1980. The Nelsons currently live in Shaftsbury.

1934

At the winter annual meeting of the ASME held in November in Chicago, **Allan Catheron** was posthumously awarded a Century Medallion. Al, who passed away last June, was a fellow of the ASME. He was a retired system research engineer for the Foxboro Co.

Charles McElroy, one of WPI's top "senior" swimmers, was invited to attend the "Sports Legends" banquet which was held in Lowell, Mass. in October to honor great athletes of the past.

Dr. **Elijah Romanoff** serves as a program director for the National Science Foundation in Washington, D.C.

1937

Lawrence Barber retired last January from A. C. Lawrence Leather Company, Inc, but continues to be active in an advisory capacity. Joining A. C. Lawrence after graduation, he stayed on during his entire career. In recent years he has had responsibility for production at all of the company's locations, from Maine to North Carolina. At its annual convention in June, the American Leather Chemists Association named Barber president-elect. In 1976, he was one of a small group of associates within the company which purchased A. C. Lawrence from Swift and Company. Soon after, he relocated his headquarters to Waynesville, N.C., where he and his wife Martha now reside. World travel has been extensive. In August he toured China, giving a series of lectures on leather manufacturing to Chinese tanners and shoe manufacturers.

In July, **Vin Johnson** retired as manager of Michigan operations for Marsh & McLennan after 28 years of service. The Johnsons took a five-week trip through Canada and New England in their motor home last summer, and spent a couple of weeks on Cape Cod. Vin writes: "We'll be in Key Biscayne for the winter and then in the spring we'll take a trip to the West coast, go on up to Vancouver, then return to Detroit."

1938

Francis Jenkins serves as a mechanical engineer at United Engineers in Holcomb, Kansas.

1939

Oiva Karna is deputy vice president of project engineering at International Coal Refining Company, Allentown, Pa.

David McEwan is presently plant manager at Cynthiana Screw Corp., a division of VSI Corp. He is located in Cynthiana, Ky.

Norman Packard is manager of engineering at Nautilus/VA in Independence, Va.

Norton Company, Worcester, has appointed **Harold White** as vice president and general manager of the Coated Abrasive Division in the United States. Previously he was vice president and general manager of the company's Organic Grinding Wheel Division. Also, he was responsible for Norton's abrasives business in Canada. Before his appointment to that post in 1979, he had served in England as vice president of abrasive operations in Northern Europe. He has been with Norton since 1946.

1940

Bruce Boyd, who entered WPI after nine years with Westinghouse writes: "At 72, I may be the oldest member of the Class of 1940." He ultimately retired from Westinghouse after 43 years of service. His first job was with the early warning radar that picked up Japanese airplanes 130 miles off Oahu on the morning of Dec. 7, 1941. "No one believed it." Boyd holds six U.S. patents. He and his wife Louise chose to stay in Maryland following his retirement to be near their family. Boyd continues his amateur radio hobby, which he started in 1921.

Lois and **Bill Brooks** finally arrived home in Scottsdale, Arizona following their 40th reunion. After leaving Worcester, they visited friends on the way back, stopping at Cape Cod, Hartford, Morristown, N.J., Knoxville, Tenn., Lake George, N.Y., among other places. They traveled 6600 miles going and coming to reunion. It was Bill's first time back since graduation.

Albert Howell is now employed as a mathematical analysis engineer at Mack Trucks, Inc. in Allentown, Pa. In 1977 he underwent heart surgery. Son Jack is a soap maker in Denver; Philip a motorcycle shop owner. Daughter Olivia is a teacher; Elizabeth, an executive secretary. Howell is interested in church work and Common Cause.

Harding Jenkins is an enthusiastic resident of Venice, Fla, and enjoys travel, tennis, and the beach. Retired from American Optical, where he was corporate vice president, he subsequently was associated with I.E.S.C. in Manila, where he helped contribute know-how in a developing area. He was a consultant to Mount Holyoke College from 1975 to 1977.

Golf, swimming, bowling, and fishing are some of **Fritz Johanson**'s activities. He's had three holes-in-one and won a club championship trophy. His wife Majken is a good golfer, too, and likes bowling, dancing, and traveling. Still with Warner & Swasey as eastern export district manager, Johanson has about a million flying miles under his belt. He's been in Russia three times, and as a member of a U.S. government delegation he visited Moscow, Leningrad, and Kiev. He attended WPI's Evening Graduate School and the Advanced Management Program at Harvard Business School. He's been involved with the Worcester Area Council of Churches.

After a four-month leave of absence to finish a shell house in Vermont, **Rolfe Johnson** is now back at work constructing a plastics facility for GE in Pittsfield. His wife, Margaret, is director of activities at a Brattleboro (Vt.) nursing home. Johnson met Margaret on a boat trip from the Isle of Man to Liverpool, and they were married in Cheshire. They toured Europe on their BMW 750. In the past ten years, Johnson has spent much of his time in Scotland, Holland, and Israel on construction projects. While in Israel, he narrowly missed three terrorist raids.

In March, **Benedict Kaveckas** joined Wang Laboratories in Tewksbury, Mass. as a senior manufacturing engineer. He likes to repair autos and appliances.

P. Warren Keating is a member of the Pursuing Committee, Worcester Society of Mutual Aid in Detecting Thieves.

Dr. **Stanley Kimball** currently holds the position of chairman of the department of radiology and nuclear medicine at Richmond Heights General Hospital in Cleveland. He has been chief of staff and is now vice president for a second time. He is certified by the American Osteopathic Board of Radiology. Kimball will fish anywhere, and has already tried his luck from the Yukon River to Guadelupe. He has six children and seven vehicles, including two diesels.

The **Arthur Koerbers** have a retirement Tyrolean chalet overlooking the Sierras at Lake Tahoe. They are employed part time as tour guides showing local historic sites, and Arthur drives a snow plow in winter. Hobbies include hiking, skiing, and model railroading. Previously, Koerber had been a camp ranger for the Girl Scouts, an organization he and his wife were associated with for years. For 25 years he was with GE in Pittsfield, Mass. specializing in lightning arrestor design. He was president of the Green Mountain Club, chairman of the New England Trails Conference, and vice chairman of the Appalachian Trail Conference.

David Kuniholm reports that he is still "lead soloist" at Kuniholm Associates in Petersham, Mass.

Kenneth McClure is the retired chairman of K.H. McClure & Co., Inc., Stamford, Conn. Presently, he resides in Charlottesville, Va.

Since retiring as chief of design from Hamilton Division of United Technologies, **Donald Ramaker** has done some consulting for UTC. After hours, he's into fishing, hiking, and antiques. Jean, his wife, is an antiques dealer. Ramaker, who had a 37-year career at Hamilton Standard, has two sons and a daughter.

His R&L Manufacturing Co. is busy producing a wide variety of urethane products, says **Milton Ross**, president of the California firm he started during "the great recession" of 1974. He holds six U.S. patents and has six children. Outside interests include flying, earthworm raising, scouting, and Little League.

Raymond Shlora and his wife, Clare, enjoy many trips to Europe. He continues as president of H.H. Brown Shoe Co., Inc., New York City. As president of the Brown Canadian operation, a post he still holds, he lived for nearly 20 years in Montreal at one time. Currently, Shlora also serves as chairman of Igloo Import and Supply Co., Ste. Agathe, Quebec.

1941

Dr. **Alfred Winslow** serves as a senior chemist at Borden Chemical Co. in Louisville, Ky.

1942

Allan Anderson is manager of market planning and development at Bath Iron Works in Maine.

Formerly with Westinghouse Electric Co., Hollywood, Calif., **Ralph Piper** is now retired and living in Sonoma.

Russell Proctor serves as director of projects at Procon, Inc., in Houston, Texas.

Samuel Williams, Jr. has been elected chairman at O'Brien & Gere Engineers. He joined the Syracuse company in 1956, and has been president since the firm was incorporated in 1971. Under his direction, the company has grown from 180 employees and $4.8 million in sales in 1971 to over 300 employees and sales totaling $12.3 million in 1979. During that time, the firm has established offices in Philadelphia, Boston, Washington, D.C., St. Louis, White Plains and New York City, adding to several previously established offices. Williams is also a trustee of Onondaga Savings Bank and the Rescue Mission Alliance. He is a director of the Greater Syracuse Chamber of Commerce, the Metropolitan Development Association and the Economic Development Corp. Besides his WPI degree, he has another from Harvard University.

1943

Everett Ambrose holds the post of senior staff engineer in the Continental Group in Avon, Conn.

Dr. **Carroll Bennett**, the acting head of the chemical engineering department at the University of Connecticut, has been named the recipient of the $2,000 Warren K. Lewis Award from the American Institute of Chemical Engineers. He received the award in November at the Institute's annual meeting in Chicago. He is a fellow of the Institute. The award, sponsored by Exxon International Co. and Exxon Research and Engineering Co., is given annually to recognize distinguished and continuing contributions to chemical engineering education. Dr. Bennett has been a professor of chemical engineering at UConn since 1964. He is the author of three books and over 30 articles which have appeared in professional journals. Also, he has served as a consultant for several firms, including the Fafnir Bearing Co., GE, Monsanto, Remington Rand Univac, and United Technologies. He holds patents relating to cellulose impregnating and the handling of natural gas. His doctorate in engineering is from Yale University.

J. Perry Fraser is now senior development engineer for Stirling engine systems at MTI, Inc., Latham, N.Y.

Ed Lipovsky has been retired for over a year. Formerly, he was a contract administrator at DCAAS-USG, in San Diego, Calif.

1944

Roger French is a self-employed consultant in energy conservation and management in Jackson, N.H. He holds an MBA from Harvard.

Charles Stowell continues as senior vice president of the Metal Exchange Corp., St. Louis, Mo.

1945

George Brown holds the position of president at Whitinsville Spinning Ring Co. in Gastonia, N.C.

Robert Scott is vice president of Johnson & Higgins of Connecticut, Inc., Hartford.

Dr. **Mitchell Tenerowicz** recently appeared on the "That's Incredible" TV show which highlighted Father DiOrio, the charismatic priest from Worcester.

1946

Walter Bank, a WPI trustee, is now marketing manager at Syseon Corp. of America in Washington, D.C.

Robert Bartlett serves as R&D manager at Alco Dispensing Systems, Carol Stream, Ill.

Walter Gleason is retired from Exxon and living in Grantham, N.H.

Presently, **John Laffey** serves as vice president of marketing for major accounts at Clark Equipment Co., Benton Harbor, Mich. He is also director of National Mobile Concrete Corp.

Allan Raymond is employed as an environmental engineer in the South Carolina Department of Health and Environmental Control in Columbia. He retired from New York State after 30 years of service. He is continuing his career in the field of solid and hazardous waste management.

Peter Vozzolla works as a senior experimental engineer at Hamilton Standard in Windsor Locks, Conn.

Robert Willis is a lead sales engineer at GE in Spokane, Washington.

1947

Henry Bove has been elected vice president of the chemical division at United Engineers & Constructors, Inc., a Philadelphia-based subsidiary of Raytheon. He had served since 1971 as project manager, and was responsible for the management and design of environmental and chemical process facilities. Earlier, he was project engineering manager and supervising engineer. Prior to joining United Engineers in 1968, Bove was affiliated with Day & Zimmermann, Inc. for 20 years, where he rose to vice president of planning and research. A registered professional engineer, he holds both BS and MS degrees in chemical engineering from WPI.

Ernest Kimball is with Kaiser Aluminum & Chemical Corp., Mexico, Mo.

1948

Robert Adams serves as president of Adams Industries, Inc., Westmont, Ill. Also, he is associated with Tuteo, Inc., Cookeville, Tenn. and the Wing Co. in Cranford, N.J.

Niel Fishman serves as sales manager at P.H. Werner, Inc., Springfield, N.J. He is a professional engineer in New Jersey and Florida.

Recently, **Arne Kellstrom** moved to Houston where he is vice president of product management for Ingersoll Rand Co.

A. Stuart Kelsey holds the post of treasurer at Reflections in Art, Inc., Pompano Beach, Fla.

Benjamin Richter works as a cement marketing and distribution manager for Texas Industries, Inc., Arlington, Texas.

Edward Tyler is manager of C&A product engineering at GE in Evendale, Ohio.

1949

Eugene Briggs is president and treasurer of Mastercraft of Burlington, Inc., Graham, N.C.

Charles Chase, formerly a supervisor for U.S. Steel, is presently retired and living with his wife, Carolyn, in Brewster, Mass.

Malcolm Ferson has been appointed manager of sales, Region I, in GE's Steam Turbine-Generator Marketing Department. He will be responsible for customer relations and sales in New England, New York, Tennessee and the western third of the U.S. With the company since 1949, in 1952, he entered the Sales Training Program. During his GE career, he has served as a turbine specialist for the Apparatus Sales Department in Dallas, and as industrial sales manager for the Medium Steam Turbine-Generator Department in Lynn, Mass. After a stint with the Electric Utility Sales Department in Texas, he was appointed manager of sales, Region III, in 1966. Since 1977, he has served as manager of pricing, planning and administration for the Large Steam Turbine-Generator Financial Operation. Ferson belongs to the Mohawk Golf Club and the ASME.

Russell Larson serves as project manager at Perini Corp., Framingham, Mass.

1950

Carl Ackerman has been named product specialist, electrical insulation, at the Fiberloys Division of Rogers Corporation, Rogers, Conn. In his new position, he will be responsible for marketing Rogers' SF/duroid and SE/duroid structural insulating materials. Before going to Rogers, Ackerman had been vice president and secretary of Union Mills Paper Manufacturing Company for 22 years. He had also been assistant to the president at Superior Polymers Company and did technical service marketing at the Chase Foster Division of Keene Corporation. He is an officer of the ASTM Techical Committee for D.09 on electrical insulating solids, is a senior member of the IEEE Power Engineering Society and the IEEE Electrical Insulating Society and is a member of the Underwriters Laboratory Industry Adivsory Group on polymer materials. The Ackermans reside in West Warwick, R.I.

Recently, **Pete Cummings** was appointed a new member of the board of trustees at Becker Junior College, Worcester. He is the current president and former treasurer and general manager of the Lowell Corp.

Glenn From is employed as program control-supervisor at Lockheed in Burbank, Calif.

Albert Perry works as manager of the Parts Distribution Center at Worthington Compressors, Memphis, Tenn.

1951

Robert Baldwin is with Pullman Heat Research, New York City.

William McNeil holds the position of manager of sales services at Cabot Corporation, Atlanta, Georgia.

Currently, **John Seguin** is an account executive at Norton Co., Worcester.

Dr. **Robert Zimmerer** was a course leader at the 12th Annual Electro Optics/Laser Conference and Exposition held in November at Hynes Auditorium in Boston. His topic, "Laser Power and Energy Measurements," was part of the Professional Advancement Course. Dr. Zimmerer is with Scientech, Inc., Boulder, Colo.

1952

Now located in Portland, Oregon, previously, **Jack Yun-Ting Kwan** was a senior research engineer in the high temperature gas dynamics laboratory at the Institute of Mechanics, Academia Sinica, Beijing, China.

Edgar Van Cott holds the position of president of Data Convertor Corp., Cochituate, Mass.

1953

Paul Snyder is manager of planning and projects at Mobil in Fairfax, Va.

1954

Clayton Brown is president of DTI Data Terminals Corp. in Medfield, Mass.

In August, **Milton Meckler** delivered a paper entitled "Solar Powered Rankine Cycle, Dual State Chiller/Regenerator Improves Combined Cycle Efficiency" at the Solar Cooling and Dehumidifying Conference in Caracas, Venezuela. His book, *Energy Conservation in Buildings and Industrial Plants*, was published by McGraw-Hill in September. The Meckler Group's newest affiliate is California Solar Technology. Its first project will be the development and installation of the residential Skytherm Solar System.

Emmanuel Milias was recently reelected president of the Hellenic Arts Society of Worcester County. He is employed by Norton Company as supervisor of Process Systems Research. A vice president of the board of directors of St. Spyridon's Church, he also sings in the church choir. He and his wife, Elpida, are former co-chairmen of the church festival.

In July, Dr. **Werner Neupert** a project scientist for NASA, briefed representatives from headquarters and the press on the first scientific payload to fly on the Space Shuttle, NASA's space transportation system. The briefing and details of seven principal experiments were provided at Goddard Space Flight Center. The prime payload for the flight, which is slated for April of 1982, is a Department of Defense project.

1955

Roger Bardwell continues as president of the Production Marketing Group in Rochester, N.Y.

Charles Walters, general manager of the Wallingford Electric Division, has been elected second vice president of the Northeast Public Power Association, which recently held its annual conference at Bretton Woods, N.H. Previously, he served as treasurer of the association. He holds an MBA from the University of New Haven.

1956

William Johnson holds the position of vice president at Sobotka & Co., Inc., Washington, D.C.

William Jordan, Jr. now is vice president in charge of logic products for Synertek of Santa Clara, Calif., manufacturer of integrated circuits. Formerly, Jordan was vice president of engineering for Boschert, and earlier, vice president of the memory systems division of Intel.

1957

Christos Alex is presently with Nanmac Corporation in Framingham, Mass.

John Bandarra is a plant manager for Tampax, Inc. in Claremont, N.H.

Allan Carlson is employed as product line manager in planning and management at Western Electric Co., Morristown, N.J.

Walter Kress serves as project manager at American Cyanamid, Engineering & Construction Division, Wayne, N.J.

The **William Rawstrons** have returned from South America where they adopted a seven-month-old boy. They have five children of their own. Rawstron holds the post of vice president for engineering and planning at Jamesbury, Worcester.

1958

Currently, **Normand Bedard** works for the U.S.A.F. at Los Angeles Air Force Station. He and his wife have two children at Assumption, one at Stonehill, and two in private high school as well as one in private grammar school.

Joseph Duddy, Jr. serves as director of construction at Revlon, Inc., Edison, N.J.

Donald Grenon is presently regional superintendent of operations at Northeast Utilities, West Springfield, Mass.

William Hopf was recently named vice president and general manager of DEMCO, a division of Cooper Industries, Inc. in Oklahoma City. He has more than 16 years in the valve industry and is regarded as a leader in the development and production of quarter-turn valve products. In 1979 he was named "Valve Man of the Year" by the Valve Manufacturers Association. From 1976 until the DEMCO appointment, he worked at Walworth Company, Valley Forge, Pa., a major manufacturer of industrial valves. At Walworth, he served as vice president and general manager of Lubricated Plug Valves, Aloyco and Marine divisions, and of the company's Cryogenic Valve subsidiary. Previously, he was vice president of engineering and quality assurance. Before joining Walworth, Hopf was manager of engineering for Irvington-Moore, Jacksonville, Fla., which manufactures lumber processing equipment for the forest products industry. From 1964 to 1974, he worked at Jamesbury Corporation, Worcester, where as R&E manager and chief engineer, he introduced actuator products, a high-performance butterfly valve, and new lines of ball valves. Hopf holds an MSME from WPI and completed Dartmouth's Amos Tuck Executive Program in 1978.

He has served as chairman of the Valve Manufacturers Association's Technical Coordinating Committee and Task Force on Product Liability and made a presentation to the White House Conference on Small Business in 1979 on product liability protection and the Federal Trade Commission's proposed standards and certification rules. Hopf and his wife Sandy have a son who attends Campbell University in North Carolina. His company, DEMCO, manufactures butterfly, gate and ball valves, centrifugal pumps, sewage treatment plants and solids separation equipment for the petroleum, chemical, food, beverage, paper, water and waste treatment, and marine industries.

Ray Johnson serves as a divisional vice president of sales at Nepsco, Inc. in Boylston, Mass.

Ronald Kangas is program manager at U.S. DOT in Washington, D.C.

Currently, **Burton Keeler** holds the post of design engineer at GE Ordnance Systems, Pittsfield, Mass. The youngest of his five children, Marion, is a freshman at WPI. Her roommate is Debbie Allen, daughter of **Owen Allen**, '54. Marion's uncle, **Malcolm Keeler**, '54, roomed with Allen thirty years ago in Sanford Riley.

David Ripple holds the post of manager of jewelry equipment development at Avon Products, Inc., Mansfield, Mass.

J. Clifford Wiersma is with J.C. Wiersma Real Estate in Indianapolis.

1959

Frederick Costello is now vice president of sales for the Ethylene Oxide Derivatives Division at Union Carbide Corporation, Danbury, Conn.Fred and **Phil Puddington** are co-chairmen of the 25th Reunion Committee.

William Pursell, Jr. is vice president of manufacturing at Canco, Inc., Houston, Texas.

Eric Rorstrom has advanced to staff engineer at Northeast Utilities. He joined NU in 1973 as a senior engineer. A member of the ASME, Rorstrom also serves as an NU representative to the Electric Power Research Institute. He has an MBA from UConn. From 1961 to 1962 he was in the U.S. Army Reserve.

1960

George Beebe serves as plant engineer for MIT's Lincoln Lab on Kwajalain Missile Range in the Marshall Islands.

Paul Byron holds the position of resident inspector at the U.S. Nuclear Regulatory Commission in Glen Ellyn, Ill.

Donaldson Dow is employed as a senior structural engineer at United Engineering in Darien, Conn.

Henry Hyde is manager of loss prevention at BASF Wyandotte Corp., Parsippany, N.J.

Paul Johnson is regional director of alumni at MIT in Cambridge, Mass.

Fred Kloiber wrote "Power Engineering in Fusion Research" which appeared in the October issue of the *IEEE Almanack*. He did graduate work at Yale, and is a member of the professional technical staff at Princeton University, assigned to the Power Branch of the Engineering Division. Previously, he had been with GE and Norden Laboratories where he worked on aircraft, spacecraft, and rail-car power and control systems.

Raymond Levesque has been named manager of American Cyanamid's newly acquired aerospace products plant in Saugus, Calif. Previously, he was thermoset molding compound department manager at the company plant in Wallingford, Conn.

Anan Pananda is director of the Customs Department in Bangkok, Thailand.

Donald Taylor is employed as project superintendent at Catalytic Inc., Toledo, Ohio.

Francis Toce holds the position of president at Syracuse Scientific, Inc., Clay, N.Y.

1961

John Donnelly is employed as manager of manufacturing of instrument products at GE in Lynn, Mass. He relocated to his present job in 1978 from the GE transformer plant in Shreveport, La.

Evan Duane serves as a software systems project leader at Grumman Aerospace Corp. in Bethpage, N.Y. He specializes in minicomputer application software development.

Ron DuFries continues with Morgan Construction Co., Worcester, where he is currently sales manager for wire machinery.

Arthur Greene holds the post of physicist at Brookhaven National Laboratory, Upton, N.Y. He is concerned with the Isabelle Project.

William Lupoli serves as senior account manager at TRW in Westwood, Calif.

Continuing with T-Bar, Inc., Wilton, Conn., **Moussit Noradoukian** presently serves as assistant vice president of marketing.

Raymond Rec continues at Eaton Corp., Kalamazoo, Michigan, where he is chief instrumentation engineer.

Ralph Smith is employed as a marketing representative at du Pont in New York City. He holds an MBA from Drexel.

1962

Albert Andrews is divsion manager at Treasure Chest Advertising in Windsor Locks, Conn.

George Bastien continues with Bechtel Power Corp., where he holds the post of group supervisor.

William Krein, formerly manager for the finance and division support operation of GE's Installation and Service Engineering Division in Schenectady, has been named controller at Zenith Radio Corp. He joined GE in 1966 in the Advanced Manufacturing Training Program and following assignments in manufacturing engineering with the Steam Turbine-Generator Division and in factory supervision with the Power Circuit Breaker Division, joined the corporate staff in 1968. In 1972, he

became manager of financial operations analysis for the Power Generation Business Group, was named manager of finance for the ISE Division in 1974, and to his last GE post in 1976. He has an MBA in finance from Babson Institute, is married, and has three children.

John "Tony" Lockwood continues as president of J.A. Lockwood Co., in Pluckemin, N.J. The Lockwoods, who reside in Bridgewater, N.J., have three sons.

Stephen Osterling, a former manufacturing manager with Eastman Kodak, has been named plant manager at Battery Technology Company in Lexington, Ky. The firm is a division of Duracell International. Osterling is responsible for directing all operations of the local facility. Battery Technology specializes in "button cell" mercury and silver oxide batteries used in watches, cameras, etc. Osterling has an MBA from Dartmouth. Previously, he worked for Johnson & Johnson.

Peter Parrino works as technical coordinator at Washington University in St. Louis.

Dr. **James Quirk** continues as a professor of physics at the University of New Hampshire. He also runs U-Drive Boat Rentals and Houseboat Vacations as well as Lake George Tour Boats.

Frank Sokol holds the position of president of Falcon Associates, Inc., Westport, Conn.

Dr. **John Tien** was a co-author of "Cobalt Availability and Superalloys" which appeared in the October issue of *Journal of Metals*. He is a professor of metallurgy at the Henry Krumb School of Mines, Columbia University. He received his PhD and MS in metallurgy and materials science from Carnegie-Mellon and his MEng degree from Yale. He was a research scientist at Pratt & Whitney Aircraft for four years before joining the faculty at Columbia in 1972. He has written over 90 papers in many materials areas, including the physical and mechanical metallurgy of superalloys, coarsening and stress coarsening, kinetics of hydrogen embrittlement, and fracture mechanics. Also, he has researched and published in areas relating to materials availability and technology transfer. Dr. Tien is a consultant to many industries and the United Nations.

John Tufano is vice president and general manager of Peco Enterprises, Inc., Davenport, Iowa. He has an MA from Notre Dame. The Tufanos, who have two children, live in Bettendorf.

1963

Raymond Akerson is employed as division chief at National Security Agency, Fort Meade, Md.

Andrew Andersen is involved with special project construction at ASR Multi Group in Troy, Michigan.

Richard Garvais, who holds an MBA from Syracuse, serves as general manager of Wilson Sporting Goods, Fountain Inn, S.C.

Hunter Associates Laboratory, Reston, Va., has announced the promotion of **Howard McDevitt, Jr.** to the position of vice president of engineering. Prior to joining Hunter, he was supervisor of the Remote-Sensing Group of the Systems Division of Bendix Corporation. More recently, he was vice president of engineering at Acuity Systems. He holds a BS from Bucknell, an MS from WPI, and he has also studied at the University of Michigan.

Dr. **Dan Pender** is setting up a medical practice in the specialty of otology (refers to car diseases) in Lido Beach, N.Y. Dan says, "It is a wonderful specialty for a mechanical engineer, as it involves microsurgical repair of middle ear structures, as well as a thorough understanding of middle ear and inner ear biophysics." The latter concerns the concepts of impedance matching, vibrations, hydrodynamics, and the electrophysiology of the neurosensory receptors in the ear. After completing surgical residency at the University of Vermont, he was certified by the American Board of Otolaryngolgy in 1978. For the next two years, he was at Harvard on a research fellowship. "Along the way, my wife, Vivian, and I have seen our family grow to four children, including three-year-old twin girls."

Art Pratt serves as a senior associate at Allan Davis Assoc., Inc., Stamford, Conn. He is a registered professional engineer in Illinois and Connecticut.

Gerard St. Germain is guidance project manager at the Naval Plant Representative Office in Pittsfield, MA.

Willard Sweetser, Jr., has been named a vice president by Burne & Roe, Inc. He will retain duties as director of construction with responsibility for all construction activities of the company.

1964

► *Married:* **Marshall W. Cross** and Margaret L. Mangan in Milford, Massachusetts. Mrs. Cross, a graduate of Quinsigamond Community College, is a senior secretary at GTE Sylvania of Needham, Mass., where her husband serves as engineering manager.

Dr. **John Boyle** holds the post of staff scientist at C.S. Draper Laboratory in Cambridge, Mass.

David McCaffrey is an account executive at Union Carbide Corp. in Chicago.

1965

Recently, **"Butch" Altenburg** established Technical Process and Engineering, a sales and engineering consultant company serving the rubber and plastic industries. He and his wife, Karen, are located in Tamaqua, Pa., where they are building a house. Both are very active with the National Ski Patrol. Also involved with the Eastern Division Ski and Toboggan Test Committee, Butch was the 49th person in the U.S. to receive National Certification. He is chairman of the Eastern Division Certified Program. Karen has been named the Outstanding Professional Patroller in the Eastern Division.

Thomas Arcari is co-founder of Triple-A-Construction Company, a firm which builds custom houses, and is presently starting a one-hundred acre development in New Hartford, Conn. He has been with Northeast Utilities since 1969. The father of four, in his spare time he coaches Little League and makes furniture.

Anibal Ayala writes, "At age 55, I will be retiring next September. Hope to be there for the reunion, because then I'll be free to go when I please." For many years a professor of electrical engineering at the University of Puerto Rico, Mayaguez, he wrote a college textbook (*Electric Machines and Transformers*). A number of his technical papers have been published in various Puerto Rican technical journals. After retirement, Ayala plans to work in real estate investments.

Philip Bachelder, who has an MS in management from RPI's Hartford Graduate Center, serves a dual role as manager of process engineering and program manager of government R&D contracts in electrophotography at James River Graphics in South Hadley, Mass. His staff of 18 is involved in six technical disciplines. The Bachelders have four sons. Their dad says, "I have coached some boys' teams, but I get over-zealous. Would you believe that as a spectator I was shown 'the yellow card' for questioning a soccer referee's call."

Dr. **Bradford Barber** is now with the School of Physics and Astronomy at the University of Minnesota in Minneapolis.

Fishing, sailing, running, and skiing are favorite pastimes for **Nicholas Barone**. Since graduation he has worked for GE and Olin Corp. He is now director of consumer services, a government regulation function. He and Kathy have two boys and a girl. Kathy is very active in the PTA. Nick is past president of the Milford (Conn.) Kiwanis, chairman of the Milford Planning and Zoning Board, and director of the Milford Conservation Land Trust.

After spending two years with Exxon in England, **Frank Benham**, and his family are now resettled om Brookside, N.J. Currently, Frank is section head in the Engineering Technology Department at Exxon Research and Engineering in Florham Park, N.J. He is involved with designing, constructing, and operating the worldwide marine terminal facilities at

Exxon's refining and marketing location. After hours, he likes woodworking, sailing, and photography. Wife Paula is an officer in the Northern New Jersey unit of the Herb Society of America. Becky, 12, has decided she's seen enough of other countries and hopes to see more of the U.S.A. Her brother, Peter, 9, is a "ball of fire" with "webbed feet from too much swimming."

Confirmed Chess Nut **Gregory Berry** is not only one of the top postal chess players in the country, he is also the current president of the Argonne Chess Club, and a past president of the Chicago Industrial Chess League. "In addition to my chess passion, I play racquetball about twice a week." Berry, who has a PhD from UConn, now holds the post of manager of the energy system analysis group, engineering division, at Argonne National Laboratory. He is primarily concerned with emerging coal-based technologies. The Berrys have two sons.

Kenneth Brown manages a team of 55 electrical-mechanical-software engineers in the development of a new class of typesetter at Compugraphic Corporation. Once busy with the Jayeees, Brown and his wife have also become active supporters of Marriage Encounter. Daughters Debbie and Diane play the piano and ice skate, respectively. Sportswise, Brown has learned to sail small racing craft (470), and discovered how to "eat lunch balanced on the rail of a keeled-over boat and how to swim out from under a capsized boat." The family leads a guitar group for weekly folk masses at church.

Randy Burr serves as a buyer at Eastman Kodak, Rochester, N.Y. He purchases process control equipment and instrumentation (recording equipment) and energy management systems, with annual purchasing volume being as high as $14 million. The Burrs and their children all enjoy golf and skiing with the children both competing in swimming. In the ten-year-old bracket, Lisa was ranked 29th in the U.S. as a breaststroker (AAU). Wife Pat is an operating room nurse. For two years, Randy was on the National Ski Patrol.

Robert Cahill writes: "Judy and I were fortunate in being VIP's at the XIII Winter Olympics at Lake Placid, and played the role to the hilt with the likes of Jean Claude Killy, Lemar Hunt, and the king and queen of Sweden." Cahill is president of National Hydron, Inc., Lancaster, Pa., which manufactures, among other things, "the" anti-fog goggle for skiers. He has been serving as class head agent. This year he, his wife, and two daughters traveled to Las Vegas and California.

Don Carlson has just relocated to Dusseldorf, West Germany, as product manager for European operations of the Torrington Company. His family of four enjoys bicycling along the Rhine with a knapsack of bread and local wine. Last fall, while home on leave, he acquired a handsome 10-point buck. Skiing in the Alps and fishing are also favorite pastimes.

Lee Chouinard was recently promoted to marketing manager of Europe and Africa for Amoco Chemicals, Petroleum Additives Division, and is now located in Geneva, Switzerland. Stacy, 8, is a budding gymnast. Trey, the Chouinards' four-year-old adopted son from Nicaragua, "has learned more English in the past 18 months than most five-year-old native Americans know." The family likes vacationing in Maine, home of Secretary of State Ed Muskie, Chouinard's uncle.

Presently, **Stephen Clous** serves as a church planning consultant with an emphasis on starting new churches in strategic locations. He is headquartered in Birmingham, Ala. He holds postgraduate degrees from Georgia Tech and Southwestern Baptist Seminary. Hiking, backpacking, and bicycling are leisure-time activities.

For the past 13 years, **David Coombe** has been with the U.S. Army. Currently, he is stationed at Fort Bliss in El Paso, Texas. Earlier assignments were at Watervliet Arsenal in New York, and at Kwajalein Missile Range in the South Pacific. Recently, he earned a flight instructor's certificate. The Coombes like sailing, scuba diving, and skiing, depending on where they are located.

Frank Rainer (Czbulka) is studying laser induced damage to optical coating and glasses at Lawrence Livermore Laboratory in California. He has a master's degree from the University of California. Travel buffs, he and Sigrid have driven from Alaska to Panama, journeyed from Asia to Germany by bus, and visited Siberia, Kenya, the Great Wall of China, and South America—in all, over 62 countries.

Charles Dufour holds the post of director of newspaper engineering at Harris Corp. Business travel has taken him to China twice recently. He, Sandra, Jill, Holly, and Chuck now live in a 150-year-old house on the Pawcatuck River in Rhode Island. "We are in the process of gutting and remodeling this charming old house," Dufour says. (His wife is an interior designer.) Besides jogging and skiing, Dufour serves as president of an investment club which he helped to organize. "As yet we've made no money, much to my wife's dismay."

Charles Durkin, Jr. recently became involved in sailing and says he is becoming "addicted." He is town committeeman and treasurer of a political social club in Yorktown Heights, N.Y. With Con Edison since graduation, he is presently manager of system operation with responsibility for the reliable economic, secure and safe operation of the electric and steam systems serving New York City and Westchester County. He holds a patent on a control device and has published articles and technical papers. In 1977, he was chief system operator at Con Edison during the New York City blackout. "Many hours of hard work then!" The Durkins have three children.

William Eidt is now international licensee administrator for Combustion Engineering, and administers agreements with companies in France, Belgium, the Netherlands, Sweden, and Finland. He has a daughter, Lauren, 6. Pastimes include gardening, softball, and part-time real estate sales. He holds an MBA from Western New England College.

Nils Ericksen of Ericksen Associates, Inc., who specializes in ski area design and ski lift relocations, is a professional engineer. In two years, he's worked in 15 states and two foreign countries. He is a licensed tramway inspector in Massachusetts, as well as a member of the national tramway code committee, and the Eastern Snow Conference. Previously, he was technical editor of "Ski Area Management" magazine. His 11-year-old daughter is a "super skier."

Jim Fee is now product manager for Accutest, a company in the automatic test equipment field. Over the years, he's regularly been involved with a number of WPI alumni: **John Jacobson** and **Cap Chenoweth**, '64—down river canoe racing and whitewater kayaking in Washington; **Alan George**, '66, **Wayne Ponik** and **Paul Covec**, '64—working on Teradyne projects; and **Pat Moran** and **Bill Shields**—road racing.

Dick Fortier, who has a PhD in mechanical engineering from Northeastern, is a mechanical group leader in the engineering division for Cabot Corporation in St. Louis. Previously, he had worked for Stone & Webster and had taught at Southeastern Massachusetts University. He and Gail have two sons. Serious running is a pastime, and in 1978 Dick qualified for and ran in the Boston Marathon.

Most of **Ron Friend's** professional career has been spent in the valve industry. Following employment with Jamesbury Corp. and Masoneilan Regulator Company, Ron is currently principal engineer at Crosby Valve and Gage Co. He belongs to the ASME, the ISA, and is a registered professional engineer. He and his family enjoy camping, their latest adventure being a two-week camping trip at Walt Disney World in Florida.

William Galebach serves as manager of the engineering department at the Hanover facility of Motorola in Maryland. His wife, Judy, is a financial analyst at Motorola. They both have degrees from Georgia State University. Although their daughter, Amy, is toddler age, she is always included in their yachting activities on Chesapeake Bay. Other interests are fishing, tennis, and being active in the Annapolis Choral Society, and the Community Association.

Robert Gerdes is currently a senior process engineer in the chemical division of PPG Industries, New Martinsville, West Virginia. He has been with the firm since graduation. His assignments have primarily been in chlorine and chlorinated benzene operations. One of his special projects was the starting of a new plant in Canada. Sally and he have two sons.

Paul Giusti went into the family business in 1976 and built a 300-seat restaurant and lounge on New Bedford's historic waterfront. "None of the laws of physics apply in the restaurant business, only Murphy's law." His wife, Patricia, a former American Airlines stewardess and Becker graduate, was Miss Pennsylvania in the Miss USA contest for

Miss Universe in 1964. The Giustis have two children and like tennis, skiing, and racquetball.

Joseph Gracia, Jr. presently serves as marketing manager of precision capacitors at Cornell-Dubilier Electronics. He writes: "Happy to be situated in southeastern Massachusetts raising a family and sailng around Buzzards Bay." Other interests include bicycling, skiing, and gardening.

Ronald Greene says he hopes to take advantage of another one of those "great trips sponsored by the WPI Alumni Association after we had such a super vacation in Paris in 1976." His involvement in barbershop quartet music has taken him to many parts of the country and Canada for conventions, competitions, and performances. He sings with an international competition chorus, The Sounds of Concord, arranges music, and directs. Since graduation, Greene has worked for General Dynamics, RCA, and Data General, where he built a department of 25 engineering programers. Since January, he has served as manager of computer diagnostics at Computervision.

Jim Gustafson, his wife, Dot, and their daughter, Cari, live on a lake in Watertown, Conn., where they swim, fish, ice skate, and go boating. Gustafson has a master's in management science from the Hartford Graduate Center. He holds the post of manager of corporate data center operations at the Stanley Works in New Britain, Conn. Previously he was with Chas. T. Main, Boston, and Air Products & Chemicals, Allentown, Pa.

John Henrickson is a product planning manager at Western Electric Co., Allentown, Pa.

Glenn Hurst serves as project engineer at du Pont in Wilmington, Delaware.

Kenneth Johnson holds the position of vice president at Natgun Corp., El Dorado Hills, Calif.

George Mitschang, who has an MS from Cornell and the Naval Postgraduate School, also has a PhD from the latter. A lieutenant commander in the U.S. Navy, he is presently stationed in Scotland.

Charles Seaver serves as superintendent of the technical division at du Pont in Victoria, Texas.

Irwin Smith continues with American Standard, Wauregan, Conn., where he is plant engineer.

Previously vice provost for enrollment planning at Carnegie-Mellon University, Dr. **William Elliott** was recently appointed to the newly-created post of vice president for enrollment at the University. Bill joined the Carnegie-Mellon staff as assistant director of admissions in 1966. He has degrees from Clark University and the University of Pittsburgh, and he is a former president of the Pennsylvania Association of College Admissions Counselors.

Richard Goodell has been named director of minerals engineering by the materials science products group of Pfizer, Inc. New York City. Since 1977, he had been plant manager for the firm in Adams, Mass., after serving in similar capacities at Pfizer plants in Lucerne Valley and Victorville, Calif. He began his career with the company in 1971 as a project engineer at the Adams plant, and became plant engineer in 1972. He will remain at the Adams plant in his new capacity. Prior to joining Pfizer, Goodell was associated with Sikorsky Aircraft, serving as a test engineer. The Goodells live in Williamstown and have three children.

Wallace Hack serves as a maintenance supervisor at Borden, Inc., Chemical Division, Leominster, Mass. He is a professional engineer in Illinois, New Jersey, and Massachusetts.

Dr. **Charles Jaworski** serves as an oral surgery resident at Letterman Army Medical Center in San Francisco. He is a lieutenant commander in the U.S. Navy. He and Rosemary have two children and live in Novato, Calif.

James Loomis is a general superintendent for Stone & Webster, Boston. He and Judy and their three children live in Baton Rouge, La.

Marty Mastroianni is a manager of market development at Allied Chemical Corp., Morristown, N.J.

Alan Moksu, who has an MBA from Northeastern, is employed as a senior staff engineer at Kollsman Instrument Co., in Merrimack, N.H.

David Spencer is with Pacific Power & Light, Centralia, Washington. He and Kathy have two children.

Robert Wilson works as a process engineer at Arwood Corp., Tilton, N.H. The company produces investment castings in aluminum, magnesium, and copper alloys, used mostly in the aircraft, aerospace, and defense industries.

Charlie Goodspeed heads Goodspeed & Associates, Exeter, N.H., a small construction company which specializes in solar energy. Also, he is an assistant professor in the civil engineering department at UNH.

Ron Gordon is involved with tech ed. planning at IBM in Irving, Texas. He is a professional soccer referee.

John Kuenzler holds the position of midwest area manager for EMC Controls of Cockeysville, Md. The Kuenzlers live in Jarrettsville and have two children.

Bhoopen Kurani is with Earth Quake Engineering Systems, San Francisco.

Herb Riddle, Jr. is employed as program manager for Special Military Electronics at Analog Devices, Norwood, Mass.

Joseph Slocik holds the position of senior engineer in the advanced transformer department at GE in Pittsfield, Mass. He has an MS from Union College.

Nelson Thune serves as plant manager at Hyland Therapeutics Division, Travenol Laboratories in Los Angeles.

Duncan Vanderberg works as a project engineer at Dow Corning Corp. in Hemlock, Mich.

1966

Brian Belanger is employed as principal staff engineer at Motorola, Inc., Tempe, Arizona.

J.N. Borad is a design engineer for Nuclear Power Service, Inc., Secaucus, N.J. He and Urmila and their three children reside in Houston, Texas.

Jeffrey Cheyne works as an electrical design engineer at Raytheon in Sudbury, Mass. He has an MSEE from Northeastern.

1967

Warren Clark serves as senior engineer at Dynamics Research Corp., Wilmington, Mass.

Carmen DellaVecchia, who holds an MS in mathematics from St. Mary's University in San Antonio, Texas, holds the post of unit manager of sales at Procter and Gamble, Shreveport, La.

Major **Edward Gallo** is currently stationed with the U.S. Army Ordnance Corps outside of Athens, Greece.

1968

►*Born:* to Mr. and Mrs. **Roger Pryor** a son, James Clark, on October 5, 1980.

Michael Babin works as a senior project engineer at Polysar, Inc., Leominster, Mass.

R. Gregory Balmer is a staff engineer at Exxon Research & Engineering Co., Florham Park, N.J. He holds an MS in environmental engineering from Purdue.

Wayne Blanchard is operations finance manager at Johnson & Johnson in Chicago. He and Sandra have two daughters.

Richard Collins has been promoted to associate actuary at State Mutual in Worcester. A fellow of the Society of Actuaries, he has been with State Mutual since 1968. He had served as assistant actuary.

Robert Cuikay, who has an MSEE from WPI, has been appointed director of support engineering at Data General in Westboro, Mass. With the company since 1973, previously he was manager of the systems sustaining engineering department.

DMP Corp., Fort Mill, S.C., has promoted **Paul Dubinsky** to executive vice president of sales, administration and manufacturing. Formerly, he was vice president of sales. Before joining the firm, he was waste treatment manager, and later national sales manager for Napco. He holds a degree in psychology from Sacred Heart University, and studied for his MA in business at UNH.

The director of Civil Preparedness in Glastonbury, Conn. recently announced that **Edward Harper** has been appointed as assistant radiological defense officer and civil preparedness training officer. Harper is director of engineering for the Harper Buffing Machine

Company and serves in electronics for the Navy Reserve. He is also the amateur communications coodinator for Civil Preparedness.

Phillip LaRoe is a range engineer at the U.S. Naval Weapons Center at China Lake, Calif.

Since 1975, **Bob Meader** has been a study manager in the Navigation and Coastal Branch of the Corps of Engineers, Mobile District. Last spring, he was one of 15 Corps employees selected to attend an eleven-month training course for water resource planners at the Board of Engineers for Rivers and Harbors in Fort Belvoir, Va. The intensive course covered a full range of planning and engineering activities from beach erosion projects to societal impacts of water supply. A bicycling devotee, like Ed Delano, '30, he commutes by bike to work. In five years he pedaled over 28,000 miles. Some time ago, he went to Delano's house where he received a friendly welcome and a glass of apple juice. Bob is studying for his MS through the University of Alabama.

Dr. **Michael Paige** presently serves as manager of product quality assurance at Wang Laboratories, Lowell, Mass.

Wayne Pierce holds the post of section head at Exxon Research & Engineering, Florham Park, N.J.

Kenneth Roberts serves as controller of the central region for Mobil Corp. He, Kathleen, and three children reside in Barrington, Ill.

Frederick White is a development engineer at Ingersoll Rand, Painted Post, N.Y.

1969

James Alford is engineering representative at Travelers Insurance in Boston. Also, he serves as commanding officer of maintenance unit, USCG Reserve, in Boston.

Thomas Fournier is district engineer at Puget Sound Power & Light in Burlington, Washington.

Peter Grosch was named manager of retail marketing for Soabar, a leading supplier of tags, labels, and in-plant marketing systems. He is responsible for the overall marketing direction of OCR-A as well as conventional price marking systems. Prior to his promotion, Grosch spent about two years as manager of advanced systems development and over three years as product manager. He has a master's degree in marketing from Emory University, Atlanta, Ga.

Dr. **Richard Gross** serves as a research leader at Dow Chemical, Plaquemine, Louisiana.

David Johnson holds the post of department chief at Western Electric in Morristown, N.J.

Presently, **Michael Joseph** is a senior physicist at Herron Optical Co., Long Beach, Calif.

George McCandless, Jr. is an instructor in the department of economics at Dartmouth College.

Vinubhai Shah works as principal engineer at Gilbert/Commonwealth in Jackson, Mich.

In September, **Peter Walsh** received his MBA from Suffolk University. He is district manager of McGraw-Edison, St. Louis, Mo.

1970

► *Married:* **Peter G. Bladen** and Janice A. Baumhover on September 20, 1980 in Henderson, North Carolina. The bride is a graduate of North Carolina State University, where her husband received his MS. They are both employed at Bechtel Power Corporation in Gaithersburg, Md.

Todd Akin is assistant manager of maintenance at Laclede Steel. He and his wife live in St. Louis and have one child.

Still with American Cyanamid, **Philip Bartlett** is presently business manager for the firm in Wayne, N.J.

Peter Billington is an assistant professor at Northeastern University, Boston. A PhD candidate at Cornell, he is working on his thesis. His major is operations management and his minor is quantitative methods in business.

Bernard Dodge, who will soon receive his PhD, is an assistant professor in the department of educational technology at San Diego State University.

Roger Etherington works as a technical service representative at Vulcan Materials Co., Chemical Division, Birmingham, Alabama.

John Garrity spoke on the Maine nuclear referendum before the Dexter Kiwanis Club in August. He joined Maine Yankee's reactor engineering department in 1970. He participated as engineering supervisor in the start-up program. In 1974, he started at Central Maine Power Co. as project engineer for the Sears Island nuclear project. Presently he is director of nuclear engineering and licensing at Maine Yankee. Formerly, he was chairman of the Boston section of the American Nuclear Society.

Will Heald is a self-employed partner in real estate investments in Phoenix, Arizona.

Dr. **Robert Plante** is an assistant professor of management at Purdue University, Lafayette, Indiana. Recently, he received his PhD from the University of Georgia.

Joseph Toce, who has his PhD in biochemistry from the University of Wisconsin, is a chemist at Sigma Chemical Co., St. Louis, Missouri. Wife Suzanne is an MD.

1971

► *Married:* **Donald H. Campbell, Jr.** and Pamela J. Hale in Enfield, Connecticut on October 4, 1980. Mrs. Campbell, who is employed by Alvin and Company, Bloomfield, graduated from Enrico Fermi High School, Enfield. The bridegroom works for Combustion Engineering, Windsor.

Keith E. Hongisto and Susan E. Johnson in Chippewa, Pennsylvania on September 6, 1980. Mrs. Hongisto graduated from West Chester State College, and is employed by Sargent Electric Co., Shippingport, Pa. The bridegroom works for Stone & Webster, also in Shippingport.

► **Kent Borner** works as division manager at Phaseliner, Syosset, Long Island, N.Y. The Borners reside in Griswold, Conn.

Richard Carroll holds the post of vice president of manufacturing at Hydr-O-Matic at Claremont & Baney in Ashland, Ohio.

Neil Collins holds the position of production administrator and project engineer at Daverman & Associates in Syracuse, N.Y. He has an MS in management science and engineering from WPI, and also graduated from the School of Industrial Management. He just completed two years as chairman of the Worcester County section of IEEE.

Greg Dickson serves as Michigan division manager of industrial hygiene for Dow Chemical Co., Midland, Mich.

Dr. **Paul Furcinitti** continues as a research associate at Columbia University. He is with Brookhaven National Lab., Upton, N.Y.

William Helliwell was promoted to manager of contract service engineering in the service division of Riley Stoker in Worcester. With the company since graduation, he had been district service manager in the Denver office. He has an MBA from the University of Denver.

William Leslie is employed as a site manager at Westinghouse in Bay City Texas.

Emile Levasseur works as a manufacturing engineer at King-Seeley Thermos Co., Norwich, Conn.

Peter Markunas currently holds the post of chief of the facilities branch of the Department of Transportation in Cambridge, Mass. He often sees Prof. **Roger Borden**, '61, who is also at the DOT on leave from WPI for the academic year.

Donald Milia is employed as a salesman at the Torrington Co., Cleveland, Ohio.

Anthony Schepis serves as marketing manager for the ATM division at ALFA-Laval, Inc., Poughkeepsie, N.Y.

Mitchell Soivenski is a systems analyst at Liberty Mutual in Portsmouth, N.H.

Donald Usher received his MBA from Kent State in May. He was a member of the WPI alumni crew team which defeated the Holy Cross alumni crew, as well as the Holy Cross varsity crew, over Homecoming.

Ron Zarrella recently resigned as director of engineering at Clairol to become vice president of manufacturing with the Danskin division of International Playtex in York, Pa.

1972

► *Married:* **John P. Gallien** to Sandra J. Treacy in Reading, Massachusetts on September 13, 1980. Mrs. Gallien graduated from the University of Massachusetts, Amherst, and manages Racquetime Club in Woburn. The groom serves as a project engineer at GTE Sylvania in Danvers.

► **James Altoonian** is a partner in Harvard Management Company, Boston. He trades equity securities for the Harvard University Endowment Fund.

James Andruchow, a building contractor for Stephen Andruchow, Inc., West Warwick, R.I., is a sponsor of the West Warwick Slow-Pitch League and of West Warwick Youth Soccer. He belongs to the town's tax assessment board of review and serves as first vice chairman of the West Warwick Republican Town Committee.

Peter Bertasi serves as market manager at Olin Chemicals in Stamford, Conn.

Richard Ellis works for O.D. Hopkins Associates, Contoocook, N.H.

Bruce Hall continues as a contract administrator for the U.S. Navy at the Portsmouth Naval Shipyard in Kittery, Me.

Ed Kleinman has received his PHD in chemistry from the University of California, Berkeley. He is now working at Pfizer in Groton, Conn. as a research scientist in medicinal chemistry.

David LeBlanc serves as a sales representative for GE's Wire & Cable Department in Bridgeport, Conn. He is district representative in Massachusetts and Rhode Island from his office in Natick.

Henry Margolis continues as a staff associate for the department of physical chemistry, Forsyth Dental Center, Boston, Mass. He has a PHD from the University of Vermont.

Richard Meighan is employed as district manager and sales engineer at Warren Pumps in Indianapolis, Indiana.

Continuing with Clairol, **Richard Sojka** is currently manager of N/S operations for the firm in Stamford, Conn. **Joseph Szlosek** works as a production supervisor at Imperial Chemical Industries in Marshall, Texas.

Richard Wolke holds the post of advanced manufacturing engineer at GE in Lynchburg, Va. His specialty is robotics.

1973

► *Married:* **Richard A. Choiniere** and Sharon A. Vegnone in Webster, Massachusetts on September 14, 1980. The bride graduated from Dudley Hall Career Institute. She is a medical secretary in Worcester. Her husband serves as quality control manager for Feecon Corp., Westboro, Mass.

Maryann Bagdis Pace and John S. Runge in Dallas, Texas on September 26, 1980. The bride has accepted a position as director of Data Processing for GENCOM, Inc., in Dallas. The company services and sells beepers, mobile telephones and telephone answering services in ten U.S. cities. Maryann's job is to design software and select appropriate hardware. The firm has no computers.

Alden J. Palmer and Cathlin A. Houlihan in Manchester Center, Vermont, on July 19, 1980. The bride, an elementary school teacher, is a graduate of Eastern Connecticut State College. In September, she began studying for her master's degree in education at the College. Her husband is a senior scientific program analyst at the Pratt & Whitney Division of United Technologies, East Hartford, Conn.

► **Fermo Bianchi** is area engineer at Canbro Corp., Pittsfield, Maine.

In June, **Richard Brontoli** will start graduate school in construction management under a fully-funded Army program. Presently he is captain and company commander with a U.S. Army engineer construction company in Baumholder, Germany.

Leo Buchakjian serves as manager of DS processing for GE in Cincinnati, Ohio. He has an MS in materials science from MIT.

Stephen Dolan, who holds an MD from UVM, is now resident physician in the department of medicine at the University of Missouri.

Andrew Langdon is a financial analyst at Rockwell International in Anaheim, Calif.

Recently, **Kenneth Lexier** was appointed as curriculum coordinator and project writer for the public schools in Uxbridge, Mass. He was chosen for the newly-created post over 28 other applicants. Previously, he held a similar position with the Attleboro School System. He has also taught at the Worcester Alternative High School and worked as a desk lecturer at Worcester State College and Assumption. He holds an MA from Assumption and an education doctorate from Boston University.

John Luikey, Jr. works as second shift superintendent at ITT Royal Electric in Pawtucket, R.I.

Frederick Paris serves as divisional project engineer at Ludlow Corp. in Needham Heights, Mass.

Albert Popoli continues as senior structural designer at Stone & Webster in Boston.

J. Diane Pritchard is now employed by Barrington College in Barrington, R.I.

Thomas Radican works as an area engineer for American Hoechst in Coventry, R.I.

Robert Schultz owns Riverpoint Tool, Inc., Providence, R.I. He is moving to Rhode Island after working in Alaska as operations manager for Alaska International Construction. He holds a degree in arctic engineering from the University of Alaska.

Gary Selden, who is with GE in Warren, Michigan, serves as manager of tungsten carbide powder production and quality control for international projects.

Previously with Material Service Corp., **Tim Whitehouse** is now plant superintendent at A.R.C. Kyle, Inc., Lithonia, Ga. The firm is a large concrete pipe producer in the southeast.

1974

► *Married:* **Charles W. Fallon** and Miss Judith L. Janson in Shrewsbury, Massachusetts on August 9, 1980. Mrs. Fallon, a student at Quinsigamond Community College, is employed at WPI. The groom works as a field-service technician at Feecon Corp., Westboro.

► *Born:* to Mr. and Mrs. **Robert Lindberg, Jr.** their first child, a daughter, Bethany Christine, on August 17, 1980. Bob is a research physicist at Naval Research Laboratory in Washington, D.C. Presently, he is assigned to Columbia University, New York City, where he is pursuing his doctorate in mechanical engineering.

Brian Anderson holds the post of sales engineer at Tyson Controls, Inc., Mansfield, Mass.

Dean Anderson is employed as a project engineer at Perini Corporation in Framingham, Mass.

Subhash Bajaj works as a quality control manager at Hitchiner Mfg. Co. in O'Fallon, Mo. The company makes non-ferrous investment castings for aerospace, computer, and communication industries.

Davis Balestracci serves as a statistician at FMC Corporation in Princeton, N.J. He is slated to receive two advanced degrees from the University of Minnesota in June.

Leonard Brzozowski serves as division materials manager at Midland Brake Division-Midland Ross Corporation, Owosso, Mich.

Don Bucci is now a senior project engineer at International Coal Refining Corp., Allentown, Pa. The company is a subsidiary of Air Products and Wheelabrator Frye. Bucci has an MS from the University of Pittsburgh. He is a registered professional engineer in Pennsylvania.

Armand Catalani holds the post of director of customer support operations at Geo. J. Meyer Mfg. in Cudahy, Wisconsin.

Robert Cimikowski is a computer specialist at Martin Marietta in Denver, Colorado.

William Dyson is senior research engineer at Monsanto, St. Peters, Missouri. Recently, he received his PHD in physics from West Virginia University.

James Edwards is presently a graduate student at Iowa State University.

John Gilgis holds the post of principal programmer at Data General in Westboro, Mass. Previously, he worked in DG's national technical support and in new products support in North Carolina for field engineering.

H. Edward Goetsch serves as assistant chief engineer for advanced products at Stanadyne, Inc., in Windsor, Conn. He has an MSEE from RPI, is married, and has one child.

David Korzec has been promoted to supervisor of general construction at Northeast Utilities, Millstone nuclear power plant. Currently he attends courses at the Groton branch of the Hartford Graduate Center. He joined NU in 1977. He and his wife, who is an interior designer for Home Beautiful of New London, Conn., live in Waterford.

James Martin works as frame foreman at New England Telephone in Manchester, N.H.

Harvey Neilson, now separated from the U.S.A.F., is currently a full-time student at Boston University.

Garry Nunes is construction supervisor at Stone & Webster in Piketon, Ohio.

Grason-Stadler has appointed **Janice Painter** as marketing manager. In 1975, she joined the organization as a customer training manager in the Behavorial Instrumentation Group. In 1976, she became associated with the GSI middle-ear product line as a marketing assistant, and then as product manager. She has traveled extensively for GSI presenting training sessions and demonstrations. As marketing manager, she is responsible for the total marketing effort at Grason-Stadler, which has been manufacturing hearing-testing instruments for thirty years.

Daniel Palmer, a project engineer at Ebasco Services, is pursuing his MBA at the University of Houston.

George Ranney continues as process engineer at Uniroyal Chemical Co., Giesmar, Louisiana.

Robert Trotter is a project engineer at Stanadyne Inc. in Windsor, Conn.

Camp Dresser & McKee, Inc., New York City, employs **Peter Tunnicliffe** as director of construction services. He is studying for his JD.

Richard Ventre is area engineer for du Pont in Wilmington, Delaware.

1975

►*Married:* **Vicki J. Cowart** and Michael Grieco from Rome, New York in April. The bride, who has her MS in geophysics from Colorado School of Mines, has been a geophysicist in the oil and gas exploration program at Mobil since 1977. Currently, she is involved with the offshore California Federal Lease Sale Program and the Wyoming Green River Basin Project. Her husband, a computer geologist for Mobil, holds degrees from the University of Syracuse.

Jean M. Reny to Thomas A. Runge on December 13, 1980 in Kalamazoo, Michigan. The bride is a chemist in chemical process R&D at the Upjohn Company in Kalamazoo. The groom recently completed his PHD in organic chemistry at the University of Wisconsin-Madison under Dr. Barry M. Trost. He will also be employed by Upjohn.

►**Vinay Aggarwal** serves as a member of the technical staff at GTE Research Labs, Inc., Waltham, Mass.

Jon Anderson continues as a lawyer with Peterson, Gibson & Noble, Montpelier, Vt.

Paul Bianchet serves as a senior field engineer at Combustion Engineering, Windsor, Conn. He has his MBA from RPI.

Erik Brodin, who is with General Motors, represented his company at a placement seminar held in November at WPI. **Robert Morin** represented Stanadyne at the same seminar.

Bruce D'Ambrosio is a programmer analyst at Pacific Sierra Research Co. in Santa Monica, Calif. He received his MS in computer science from the University of Southern California.

Harry Danberg works as a process engineer at Celanese Chemical Corp., Houston, Texas.

Navy Lt.j.g. **William Demers** has returned from a deployment in the Mediterranian Sea. He is personnel officer of Carrier Airborne Early Warning Squadron (VAW) 123, based at the Naval Air Station, Norfolk, Va. While deployed, his squadron was embarked aboard the aircraft carrier USS Saratoga. During the cruise, the crew visited a number of ports from Palma de Mallorca to Tunis. The ship participated in several training exercises, including the NATO exercise, "Dawn Patrol."

Robert Donle is project engineer for Pacific Construction Co., Ltd., Honolulu, Hawaii.

Allen Downs has started the MBA program at Harvard Business School.

Jay Gainsboro holds the position of president at Opus Telecom Inc. in Weston, Mass.

Will George is now assistant district attorney at the Worcester County Courthouse.

Maurice Giroux works as a senior engineer at Martin Marietta Aerospace in Denver, Colorado. He has an MBA from the University of Utah. Presently, he is concerned with space shuttle communication system engineering.

Lt. **Daniel Halstead** continues with the U.S. Navy at Pearl Harbor.

Kenneth Howell works as a junior accountant at Aimes Department Store in Rocky Hill, Conn.

Terry Itameri-Kinter, and Kristina, whom he married last June, spent a two-month honeymoon bicycling through Germany, the Netherlands, Belgium, Luxembourg, Switzerland, and Italy. Currently, the couple resides in Turku, Finland, where Terry is an English instructor at Inlingua Kieliopisto.

Gary Kiontke was promoted to senior actuarial assistant at Monarch Life Insurance Co., Springfield, Mass. He joined the firm in 1977, and previously held the position of actuarial assistant. Recently, he took courses at the School of Insurance at the University of Connecticut.

Robert Lord, Jr. is employed as a district sales engineer at Torrington Co. in Westport, Conn.

Ronnie Materniak, who is presently enrolled in the MBA program at the University of Richmond, is area engineer for du Pont in the construction division at the Spruance plant.

Mark McCabe holds the position of project engineer-manager at Wendel Kent & Co., Inc., Sarasota, Fla.

Robert Murray holds the post of senior support engineer at Northrop Corp. in Norwood, Mass. He has been with Northrop since November of 1979.

Paul O'Brien is presently a seminarian studying for Catholic priesthood at Pope John XXIII National Seminary in Weston, Mass., where he will receive his master's of divinity. He has an MBA from the University of New Haven.

Robert Simon holds the title of business analyst at Allied Chemical Corp., Chemicals Company, in Morristown, N.J.

Dr. **Kazem Sohraby** is employed as senior engineer at Computer Sciences Corp., Falls Church, Va. He has a PHD in electrical engineering from Polytechnic Institute of New York.

Steve Sweeney works as an industrial engineer for the Department of the Navy in Pittsfield, Mass. He received his MBA from the University of Hartford.

Presently, **Donald Taddia** is employed as a project manager at USAIR in Pittsburgh, Pa.

Morris Weisman is employed as a meteorologist at the National Center for Atmospheric Research in Boulder, Colorado.

Scott Wilson is now a project gyro engineer at Timex Corp., Middlebury, Conn. He and his bride, Nora, reside in Wolcott.

Jon Wyman, a lieutenant in the Civil Engineer Corps, U.S. Navy, just completed a tour with deployments to Rota, Spain and Guantanamo Bay, Cuba. He and Rhonda have three children and live in Gainesville, Fla. Currently, Jon is working for his MS in engineering and construction management at the University of Florida, Gainesville.

1976

►*Married:* **Scott R. Bamford** to Patricia Devine on October 18, 1980 in Warwick, Rhode Island. The bride, who has an undergraduate and graduate degrees from the University of Rhode Island, has been an employment counselor for the state. Her husband has a master's degree in ocean engineering from URI.

Mark K. Coulson and Diane M. Ciaccio on September 27, 1980 in Massachusetts. Mrs. Coulson received her degree in biology from Skidmore College and presently manages her own business. The groom is employed as a nuclear engineer in Connecticut and is studying for his MBA.

Craig J. Plourde and Mary A. Parese in North Haven, Connecticut on October 18, 1980. The bride, an engineer for SNETCO, graduated from Villanova with a BS in biology and holds an MS degree in environmental engineering from the University of Connecticut. The bridegroom serves as a senior systems engineer at CBT.

John Ryle III and Wendy D. Rockefeller on May 31, 1980. The bride graduated from Radford College in Virginia. Her husband is a benefit specialist at Buck Consultants, Inc. in New York City.

Paul R. J. Selent to Gail J. Bringsauf on October 12, 1980 in Kinnelon, New Jersey. The bride graduated from Montville Township High School and is employed as a technical clerk at Exxon Research and Engincering in Florham Park, N.J., where her husband is an electrical engineer. He has received his master's degree from RPI.

►*Born:* to Susan and **Jeremy Brown** twin daughters, Melissa Margaret and Glenna Elizabeth, on July 21, 1980. Their daughter, Emily, will be three in February. Brown recently completed the fellowship examinations of the Society of Actuaries and was promoted to assistant actuary at State Mutual in Worcester.

►Army Major **William Baker** is now stationed at Ft. Leavenworth, Kansas. In June, he will be headquartered at Ft. Lee, Va.

Peter Barbadora is employed as assistant supervisor of quality assurance at Perini Power Construction, Framingham, Mass.

Joseph Betro is a doctoral candidate at the University of Illinois in Champaign-Urbana. Two years ago he received his MSEE from the University of Wisconsin.

Alan Briggs was recently promoted to maintenance supervisor at du Pont's neoprene manufacturing facility in LaPlace, La. He is continuing to work for his MBA on a part-time basis.

James Buss, an associate of the Society of Actuaries, has been advanced to senior actuarial associate at State Mutual in Worcester. He had been an actuarial associate.

W. Kim Colich serves as associate buyer at Newport News Shipbuilding, Newport News, Va. The Coliches have one child and live in Hampton.

Albert Cooley serves as product manager at the Codex subsidiary of Motorola in Mansfield, Mass. Presently, he is working on his MS at BU. Earlier, he had been with RCA Solid State.

David DeMeo continues as a lieutenant with the U.S. Navy.

Loretta Deming is associate project engineer at Clairol in Stamford, Conn. She has an MS from MIT.

Sidney Formal is presently with USAED, Baltimore District, at Ft. Belvoir, Va.

Daniel Garfi is employed as a consultant at Spiridellis and Associates, Inc., Piscataway, N.J.

Norman Gariepy is now a CPA and senior auditor at Touche Ross & Co., Worcester. He holds an MS in accounting from Northeastern.

Scott Gowing is with David Taylor Naval Ship Research and Development Center in Bethesda, Md.

Previously a transportation planner in Hartford, Conn., **John Griffiths** is now a project development engineer at Tri-Met, Portland, Oregon. He has an MSCE from the University of Virginia.

John Hamilton continues as chief project engineer at Raymond International Builders in Houston, Texas.

George Hefferon has received his PHD in photo-chemistry from Columbia University, where he also earned his master's degree. Presently, he and his wife, Marguerite, are at Ohio State University in Columbus, where he is doing post-doctoral work, and she teaches English. Mrs. Hefferon is working on her PHD in English at Ohio State.

Kansas Gas and Electric Company recently named **Thomas Keenan** as director of nuclear operations. Previously, he was director of engineering and operations at Vermont Yankee Nuclear Power Corporation, Vernon, Vt. In his new post, he will be responsible for the operation of Wolf Creek Generating Station which is under construction near Burlington, Kansas. A Naval Academy graduate, Keenan, who served several years in the Navy, attended the Naval Nuclear Power School, and for six years was chief engineer for the USS Robert E. Lee nuclear submarine. With Yankee since 1969, in 1977, he was named director of engineering and operations for Vermont Yankee Nuclear Power Corporation.

Kenneth Korcz works as a field engineer for GE in Atlanta, Ga.

A self-employed consultant, **Marc Langlois** recently received his MS in materials engineering from WPI. He is located in Decatur, Ga.

Roger Leighton is an automation engineer at Eastman Kodak, Rochester, N.Y.

John Mangiagli, Jr. is a technical service engineer at Ingersoll-Rand Co. in Painted Post, N.Y.

Michael Miller continues as a captain in the U.S. Army. He is operations officer of a helicopter flight unit.

Kathleen Morse of Digital Equipment Co. was a panelist at a placement seminar held at WPI in November.

Stephen Rourke has been promoted to quality assurance analyst at the New England Power Exchange (NEPEX). The operating arm of the New England Power Pool, NEPEX coordinates the production and transmission of electricity in New England. Rourke joined NEPEX in 1976 as an assistant engineer. He advanced to associate engineer in 1978. Currently, he is completing his MBA at Western New England College, Springfield, Mass. He belongs to the IEEE and is chairman of the NEPEX-NEPLAN Activities Committee, a recreational group for employees. He is a member of the Cathedral Chapter at Christ Church Cathedral, Springfield.

Continuing with GE, **Eugene Savoie** is currently district sales manager for the firm in Overland Park, Kansas.

Steven Tremblay is executive director of Alpha I, South Portland, Maine.

Presently, **Mike White** works for Water and Power Resources Service for the U.S. Department of Interior in Klamath Falls, Oregon.

Jeff Wilcox holds the post of administrative analyst at Mobil Oil in Mission, Kansas. He has an MBA from the University of Pittsburgh.

1977

►*Married:* **James B. Howe** and Barbara A. Merriam in Baldwinsville, New York on October 11, 1980. Mrs. Howe graduated from Powelson Business Institute and is with Niagara Mohawk Power Corp., where her husband serves as an engineer.

Charles M. Johnson and Janet K. Van Wert in Holden, Massachusetts on August 16, 1980. Mrs. Johnson is a graduate of UMass-Amherst, where she received a BS in elementary education. The bridegroom attends Cornell University Graduate School of Business.

John J. Osowski and Debra Smith in Canandaigua, New York on August 23, 1980. The bride, a graduate of Community College of the Finger Lakes, is a student at Rochester Institute of Technology, where her husband is also enrolled. She is a customer service representative for Mobil Chemical Co. The bridegroom is temporarily assigned to Mobil Chemical Canada Ltd., Belleville.

►**Michael Abrams** is a senior engineering technician at Geo Source in Houston, Texas. Currently, he is working on his MSEE at the University of Houston.

Glenn Andrews serves as a technical programmer at Travelers Insurance Co., Hartford, Conn.

Christopher Baker and his wife, Nancy are currently residing in Lawrence, Mass., where they were married last October. Baker writes: "Nancy didn't like cactus, so we moved back to New England from Arizona." Nancy graduated from Northern Essex Community College and currently works for Cressey-Dockham Co., while her husband is with Edwards & Kelcey in Boston.

William Cronin continues with Digital Equipment in Maynard, Mass.

Still with General Dynamics, Convair Division, **Paul Curdo** is now on loan in an industry-assist program to Boeing Co., Seattle, for design of the strut structure of a new generation airplane, the 757. He is a structural engineer.

Alfred Elvin is a post doctoral fellow at SUNY, Buffalo, in the Department of Pharmaceutics.

Tom Grautski serves as an area manager in production at Estee Lauder in Melville, N.Y.

Keith Harrison is employed as assistant area engineer by the Federal Highway Administration in Lansing, Michigan.

George Keeler recently completed the GE Advanced Engineering Course and Edison Program. He is a product design engineer for GE in Pittsfield, Mass.

Brian Kisiel continues as a technical specialist for Betz Laboratories working out of Wilton, N.H.

Henry LeBlanc, still with the Plastics Division of Mobil Chemical Co., currently serves as project manager on a $10 million plant expansion in Bakersfield, Calif., the completion date being in May. Since April, he has been a crew member on a racing yacht

which sails out of Long Beach Yacht Club. He writes: "The winters in Southern California are much nicer than those in upstate New York (Macedon), although I do miss the beauty of that first snow fall."

David Makris is a senior associate programmer at IBM in Poughkeepsie, N.Y.

Bruce Minsky of the University of Massachusetts Medical School participated in the placement seminar held in November at WPI.

Roberta Ann Nelson is in technical sales at Schaal Associates, Burlington, Mass. At night she goes to Suffolk Law School. She has an answering service for her own business, Bertabel Trust.

Vanigere Ranganath holds the post of program and systems manager at Hewlett Packard in Waltham, Mass.

Albert Riggieri, Jr. serves as a senior actuarial assistant at Paul Revere Life Insurance Co., Worcester.

Nancy Roberts is employed as an actuarial analyst at Sun Life of Canada in Wellesley Hills, Mass.

Ralph Sacco III continues as a sales engineer at Westinghouse in Framingham, Mass.

Robert Szewczyk is an electro-optics engineer in the Optical Sciences Department at the University of Arizona in Tucson.

Dave White is a biologist for Ecology & Environment, Inc., Edison, N.J.

1978

►*Married:* **James K. Boettcher** and Terese A. LaMoria on July 12, 1980 in Rutland, Massachusetts. Mrs. Boettcher attended Becker and Castleton State College. Her husband is a computer operator at Reed & Prince Manufacturing Co., Worcester.

John A. Brighenti and Kristen E. Johnson on November 1, 1980 in Wethersfield, Connecticut. Mrs. Brighenti graduated from Hartford College for Women. Recently, she received a degree in criminal justice from the University of New Haven. The groom works for Avon Plumbing and Heating.

Robert H. Caless to Sarah C. Connelly in Concord, Massachusetts on June 7, 1980. The bride graduated from the University of New Hampshire. The groom holds a master's degree in metallurgy from RPI. He is employed at Pratt & Whitney Aircraft, East Hartford, Conn.

John B. Cozzens and Mary Ann Desaulner in Webster, Massachusetts on August 16, 1980. Mrs. Cozzens, a pre-school educator, graduated from Quinsigamond Community College. Her husband is an electrical engineer. The couple resides in Glens Falls, N.Y.

Stephen LaPlante to Debora Henneberry on August 8, 1980 in Attleboro, Massachusetts. The bride attended Parson's School of Design in New York City. She is employed by Women's World Health Spa, Raynham. The bridegroom is with Vappi Construction Co. of Cambridge.

Endel J. Luhtjarv and Dawn K. Charlonne in Winchendon, Massachusetts on August 9, 1980. The bride graduated from the dental assistant program at Monty-Tech. Her husband serves as a quality assurance engineer at Simplex Time Recorder.

►Navy Lt.j.g. **Bramwell Arnold, Jr.** was promoted to his present rank while serving with Attack Squadron 122, based at Naval Air Station, Lemoore, Calif.

Daniel Baublis, a field engineer for Babcock & Wilcox, is presently a lead start-up engineer at a coal power plant in New Mexico.

State Mutual, Worcester, recently promoted **Shane Chalke** from actuarial assistant to actuarial associate. He is an associate of the Society of Actuaries.

Barry Cronin serves as a project engineer at GE in Syracuse, N.Y.

Rodney Dill is a field engineer at GE Ordnance Systems in Newport News, Va.

Elizabeth McCauley Donahue is employed as an occupational program consultant by the Aiken County Commission on Alcohol and Drug Abuse in Aiken, S.C. She is director of a $26,000 program providing employer assistance programs to industries in a three-county area. During the past fiscal year, revenues have doubled.

Jeffrey Firestone, still with Rockwell, is currently on loan to Boeing in Seattle, Washington. He has been assigned to Boeing Aerospace on the MX missile project.

Formerly with O'Brien & Gere, **Bill Gagne** is now a graduate teaching assistant in the department of civil engineering at WPI.

Paul Gifford is a construction estimator at Daniel International, Manchester, Ohio.

Karen Hayes serves as a programmer-analyst at Gerber Systems Technology, South Windsor, Conn.

Keith Herreman holds the post of marketing representative at Westinghouse, Athens, Ga.

Michael Kenniston is a PhD student in the computer science department at Stanford University, Stanford, Calif.

Presently, **Gary Knox** is with E.J. Systems, Inc., where he is concerned with advanced manufacturing technology. He is located in North Billerica, Mass.

Stephen Kuczarski serves as a project engineer at Hamilton Standard, Windsor Locks, Conn. He, his wife, Carole, and baby, Laura, reside in West Springfield, Mass.

Scott Lentz holds the post of control systems engineer at Aramco in Houston, Texas. He will be moving to Saudi Arabia.

Charles Marden is a lieutenant j.g. in the Navy. Home port is Pearl Harbor.

Laura Mattick is tranferring with Procter & Gamble from the Mehoopany Paper Products plant to the St. Bernard Soap plant in Cincinnati. At Mehoopany, Laura had assignments as a production supervisor, industrial engineer, and area safety manager in the tissue module which manufactures Charmin and White Cloud. Her new assignment will be as a synthetic granular detergent packing supervisor.

Thomas Medrek is an electrical engineer at ADE Corp., Newton, Mass.

Alok Misra works as a system software engineer at Computer Controls Corp. in Wilmington, Mass.

Currently, **Jill Neal** is attending Carnegie-Mellon Graduate School of Industrial Management. In June, she completed GE's two-year Management Training Program.

Currently, **Charles Pallett** is working in Venezuela for the project management department of Exxon Research & Engineering Co.

Larry Parretti serves as an assistant project engineer at Perini Corp., Rockville, Md. He and Vicki live in Silver Spring.

Philip Scarrell works as a first line production supervisor at du Pont in Front Royal Va.

Andrew Tabak serves as a Redeye section leader for the U.S. Army in Ft. Riley, Kansas. He uses the Redeye heat-seeking man portable missiles to provide air defense coverage for a 54-tank battalion.

David Tate is employed as a senior software engineer at Sanders Associates in Nashua, N.H.

Presently, **Russell Thomas** is employed as a production engineer for the computer division of Hewlett-Packard, Cupertino, Calif. He is concerned with the HP 1000 AP automation processor. Russell received his degree in management after just three years at WPI. After graduation he worked for a small plastics company for six months. He then re-enrolled at WPI, this time taking courses in the electrical engineering program, finishing in 1980. He now has the equivalent of a double major, and he is enjoying his new post and life in the California area.

Bettina Tuttle recently completed a special development program for promising young engineers with GE. Called the Chemical-Metallurgical Technical (Chem-Met) Program, it is a two-year program in manufacturing management sponsored by the Engineered Materials Group, a group of five chemical and metallurgical businesses. Upon joining GE, Tina went into the Chem-Met Program which rotates participants through four six-month assignments at two different locations, exposing them to the technical and administrative aspects of manufacturing positions. Program members are outstanding chemical, mechanical, or metallurgical engineering graduates. Tina began as a process engineer and was later a facilities engineer with the Laminated and Insulated Materials Department in Coshocton, Ohio. Her third assignment was as a process engineer in the Plastics Operations in Pittsfield, Mass. Presently, she is supervising the start-up of an exchange process for a new plastic venture.

John Vestri, Jr. is a production control planner at Parker Hannifin Corp., East Brunswick, N.J.

Michael Walker is employed as assistant superintendent at Morse/Diesel, Inc., Boston.

Wes Wheeler continues with Exxon Research & Engineering in London for a two-year loan assignment. He is working in the project management department of Esso Engineering (Europe) Ltd.

1979

► *Married:* **Tim F. Bamford** and Florinda M. Costa in Portsmouth, Rhode Island on August 23, 1980. Mrs. Bamford, who attended Southeastern Massachusetts University, is studying at Lowell University. The bridegroom is employed at Genrad Inc., Concord.

Charles R. Close to Karen A. Thibault in Somerset, Massachusetts. The bride graduated from Becker, and formerly worked at Raytheon in Portsmouth, R.I. The groom is with Alcoa Aluminum Co., Little Rock, Ark.

M. Beth Driscoll and Samuel M. Kinney III on October 4, 1980 in Georgetown, Connecticut. The bride now works at AT&T Long Lines in White Plains, N.Y. Her husband, an insurance broker, has a BA in English from the College of Wooster (Ohio) and is employed by Frank B. Hall & Co. in New York City.

Louis Frascotti to Rachela Tironi in Waterford, New York on October 11, 1980. Mrs. Frascotti, who is employed by Brooks Junior Fashions, Inc., graduated from Becker. The groom serves as a fire protection engineer with Kemper Insurance Co., North Quincy, Mass.

Thomas B. Girotti to Debra K. Solomon in South Boston, Massachusetts on August 23, 1980. Mrs. Girotti graduated from Smith-Deal-Massey Business College in Richmond, Va. The bridegroom is employed by the Virginia Electric and Power Co. in Norfolk.

Donald A. Larson and Miss Deborah A. Close in Rowayton, Connecticut on October 11, 1980. Mrs. Larson graduated from Becker. Her husband is employed as a sales representative by Data General.

Stephen J. Lefemine and Francyne D. Fiorillo in Shrewsbury, Massachusetts on May 11, 1980. The bride graduated from Clark and is a probation officer at Worcester Juvenile Court. The bridegroom is a sales-application engineer at Warren Pumps, Inc., Warren, Mass.

Mary Ellen Mazeika to William J. Blunt in Worcester on August 16, 1980. The bride serves as a regional planner with the Central Massachusetts Regional Planning Commission. The groom graduated from Holy Name Central Catholic High School. He is a machinist for Norton Co.

Daniel P. Paniccia to Dawn C. Smith on September 6, 1980. Mrs. Paniccia graduated from Berkley Secretarial School. She is with M.G. Wheeler Co., Greenwich. Her husband, after attending WPI, went to Columbia University.

David E. Szkutak and **Joan M. Bolduc** on August 30, 1980 in Waterville, Maine. The bride is an electrical engineer for Procter & Gamble in Cincinnatti, Ohio, where her husband serves as a chemical engineer.

Paul N. Zeytoonian to Jane F. Connaughton in Waltham, Massachusetts on September 21, 1980. Mrs. Zeytoonian, a nurse in the critical care section of Waltham Hospital, graduated from St. Elizabeth's Hospital School of Nursing in Brighton. Presently, her husband is attending the Graduate School of Engineering, Northeastern University. He is employed as a mechanical engineer with the Polaroid Corp.

► **Ronald Bauman**, who has an MS in management from WPI, works as a sales representative at Digital in Melville, N.Y.

Paul Bellagamba continues with Donald O. Anderson, a general contractor in Middletown, R.I.

Continuing with GE, **Stephen Caputo** is now a district sales manager in Minneapolis.

Clint Carpenter is a research assistant in the department of chemistry at the University of Wisconsin in Madison.

Timothy Casey is with Interstate Electronics Corp., Anaheim, Calif. He writes that Liz is enrolled in a PHD program in hydrodynamics.

Garrett Chace holds the position of manager at Killingly Building Products, Dayville, Conn.

Ray Chase works as a management trainee at O.Z. Gedney, Terryville, Conn.

Chris Corpuz is in the MCRP program at Harvard.

George Dainis has completed his MS in chemical engineering work at MIT and he now works as a process engineer in the plating department at Texas Instruments, Inc., Attleboro, Mass.

Douglas DeSimone is now in the department of biological sciences at Dartmouth College, Hanover, N.H.

Raymond DiMuzio was recently promoted to polyvinyl emulsion supervisor at the Plainfield, N.J. plant of National Starch and Chemical Corporation. He joined the company in 1979 as a production engineer. He belongs to the American Institute of Chemical Engineers.

John Donahue works as a substation engineer at Niagara Mohawk in Syracuse, N.Y.

Louis Feula works as a technology engineer for the Monsanto Co. in Indian Orchard, Mass.

David Freni is a civil engineer with the Federal Aviation Administration, headquartered in Kansas City, Missouri. He says he has a "constant travel" status.

Michael Gallerani continues as a manufacturing engineer at GE in Providence, R.I.

Mark Galvin is a project engineer at Burton Tool & Die Co., Leominster, Mass.

John Grimwade holds the post of field engineer at Babcock & Wilcox in Chicago.

Suzanne Hess, who is employed by Exxon, was a panelist at the placement seminar held at WPI in November.

Kenneth Howard works for Innamorati Bro., Clinton, Mass.

David Johnson, formerly with Film Cooling Towers Ltd., England, is presently with Johnson Associates, Inc. in Bridgewater, Conn.

Lawrence Kurt is employed as an accountant at Robertshaw Controls, Milford, Conn.

Brien Laufer is now affiliated with the Shell Oil Co., Houston, Texas.

Stephen Lawry is a high energy laser physicist at the USAF/AF Weapons Lab., Kirtland AFB, Albuquerque, N.M.

James Mastalerz continues as a programmer-analyst at Coppus Engineering in Worcester.

Thomas McClure works as a lubricants and finish chemist at GE Medium Steam in Lynn, Mass.

Robert Parent serves as a software engineer at Tektronix in Oregon.

Stephen Rehn works as an electrical engineer at Panametrics in Waltham, Mass.

Philip Rubin is a process engineer at du Pont/Berg Electronics, New Cumberland, Pa. He has received his MS in materials from WPI.

Leonard Taylor is with Xanics & Co., Van Nuys, Calif.

Neil Volkmar works as manager of operations engineering at GE-DOE Neutron Devices in St. Petersburg, Fla.

Currently, **John Wheeler** serves as assistant to the president at Citrus County Land Bureau, Far Hills, N.J.

1980

► *Married:* **Eugene W. Balinski**, Jr. and Diane E. Martin in Worcester on June 14, 1980. Mrs. Balinski graduated from Salter Secretarial School and is a secretary for the Nashua, N.H. Fire Department. The groom is employed at Sanders Associates, Nashua. . . . . **Gregg Belevick** and Sarah Brunell in October. The couple is living in Worcester. . . . . **Richard L. Coleman** and **Kathryn L. Grider** on May 24, 1980 in Cumberland, Rhode Island. The bride is an associate engineer at GE in Pleasanton, Calif. Her husband serves as a computer scientist at Lawrence Livermore National Laboratory in Livermore.

Todd W. Cullen and Miss Kim M. Richardson in Marlboro, Massachusetts on June 21, 1980. Mrs. Cullen attended Westfield State College. She is a room reservationist at Sheraton Lincoln Inn. Her husband serves as assistant manager of Thom McAn, Worcester Center. . . . . **Robert B. Cummings** and 2/Lt. **Candyce L. Hallock**, U.S. Air Force, in Worcester on October 18, 1980. The bride, who is stationed at Hanscom AFB, is a projects officer co-located at Mitre Corp., Burlington, Mass. The bridegroom serves as a project engineer at J.F. White Contracting Co. of Boston. . . . . **Timothy S. Dean** to Nancy E. Hodgdon on July 28, 1980 in Portland, Maine. The bride is an alumna of the University of Southern Maine. Her husband is a plant design engineer at Bechtel Power Corp., Gaithersburg, Md.

Perry Esposito and Cynthia Stahley in New Preston, Connecticut on October 4, 1980. Mrs. Esposito graduated from Southern Connecticut State College in New Haven with a BS in elementary education. She taught at the Family Resource Center in New Milford. The bridegroom has accepted a post at Bailey Controls in Denver, Colorado. . . . . **Jill E. Fabricant** and **Glenn A. Corwin**, '81, on June 15, 1980. The bride has been named programmer-analyst at Digital in Maynard, Mass. She is also taking evening graduate courses at WPI. Her husband is a computer science student at WPI. . . . . **Paul A. Ferrara** and **Diane M. Santaniello**, '79, on October 12, 1980 in Johnston, Rhode Island. Mrs. Ferrara is with State Mutual Life Assurance Company. Her husband works for the Small Business Service Bureau in Worcester.

Gary E. Graf to Cheryl A. Sarofeen in North Brookfield, Massachusetts on June 14, 1980. The bride graduated from North Brookfield High School. The bridegroom is an electrical engineer at Sanders Associates, Nashua, N.H. . . . . **Stephen J. LaFlamme** and Barbara A. Morin in New Hampshire on July 25, 1980. The bride, an employee of New Hampshire Insurance Co., graduated from Manchester Central High School. The bridegroom was temporarily employed by the Veteran's Administration Hospital Engineering Department. He is now working for his master's degree in nuclear engineering at Ohio State University. . . . . **Allen L. Legendre, Jr.** and Diane M. Ritchie on June 20, 1980 in West Boylston, Massachusetts. Mrs. Legendre graduated from St. Peter-Marian Central Catholic High School, Worcester. She was manager of the Gold Star Boulevard Branch of Home Federal Savings & Loan Association. Her husband has his master's degree in management from WPI. He has joined Florida Power Corp., St. Petersburg, Fla.

Arthur B. O'Leary III and Eileen R. Ford on October 11, 1980 in Cornwall Bridge, Connecticut. Mrs. O'Leary graduated from Bay Path Junior College with an AS degree in business administration. She is a money market investment technician for Aetna Insurance Co., Hartford. The bridegroom is with Artisan Industries, Inc., Waltham, Mass. . . . . **Thomas C. Stange** to Cynthia M. Noel in Athol, Massachusetts on September 1, 1980. Mrs. Stange graduated from Hahnemann Hospital School of Nursing, Worcester. She is a registered nurse at Memorial Hospital.

► *Born:* to Mr. and Mrs. **Mark Lewis** a son, Stephen John, on August 1, 1980. Lewis is employed by Caltrans and is located in Eureka, Calif. He writes: "My dog, Bart, is also in California. He grew up on the WPI campus."

► **Michael Aghajanian** has been named as a systems specialist at GE, Fitchburg, Mass. . . . . **Dennis Allard** works as a structural engineer at Technical Aid Corp. in Waltham, Mass. . . . . **Mark Andrews** is an applications chemist at Waters Associates in Milford, Mass. . . . . **Craig Autio** is associate engineer at AVCO-Systems Division, Wilmington, Mass. . . . . **Amos Barnes IV** is studying for his MSCE under an NSF grant at WPI.

Joseph Barone works as a rotating engineer at GE Ordnance Systems in Pittsfield, Mass. . . . . **Hildegard Benneck** is now a member of the technical staff at Bell Telephone Labs, Holmdel, N.J. . . . . **Robert Berlo** holds the post of sales engineer at Hinds & Coon Co., South Boston, Mass. . . . . **Mark Beschle** has joined GTE Sylvania. . . . . **Brian Biernacki** is employed as a junior field engineer in the training department at Dresser Atlas in Houston, Texas.

David Bowers has been employed by the corporate safety department at Air Products and Chemicals, Allentown, Pa. . . . . **Todd Brennan** is with Ciba-Geigy Corp. in Cranston, R.I. . . . . **Keith Brown** is an environmental engineer at Cullinan Engineering, Auburn, Mass. . . . . **Salvatore Bruno** has joined Union Carbide as a plant electrical engineer in Red Oak, Iowa. . . . . **Jeffrey Carter** works as a manufacturing program engineer at Xerox Corporation, Webster, N.Y.

Mike Chew works for Bendix Corp., Kansas City, Missouri. . . . . **Donald Connor** is a graduate student in biobehavioral studies at UConn. . . . . **Stephen Courville** is with GTE Sylvania, Needham, Mass. . . . . **Dave Craigue** and **William Emmet** won second prize in The Lincoln Arc Welding Foundation competition for the hydraulic tomato-planting machine which they designed and built as a WPI project. Emmet is now at Cornell University in a two-year MS program in agricultural engineering. . . . . **Charles Crowley** has been named a staff engineer at Poly Cast Technology Corporation, Stamford, Conn.

Judith D'Agostino serves as a process engineer at Monsanto Plastics & Resins in Springfield, Mass. . . . . **Duane Delfosse** is now program engineer for GE in San Jose, Calif. . . . . **Joseph DeMauro** serves as district manager of performance control at New England Telephone in Boston. He and his wife, Theresa, reside in Framingham. . . . . **Jeffrey Deutsch** is a graduate student in the electronics research laboratory at the University of California, Berkeley. . . . . **Richard DiMascio** works for GTE Sylvania in Needham, Mass. . . . . **Paul Diotalevi** has been hired as a management trainee at New England Telephone in Framingham, Mass. . . . . **Paul Doherty** is now a process engineer at Pfizer, Inc., Chemicals Division, Groton, Conn. . . . . **Robert Dreyfoos** serves as a design engineer at Photo Electronics Corp., West Palm Beach, Fla. . . . . **Margaret Dumont** has joined Digital Equipment Corp. in Nashua, N.H. . . . . **Hebert Dunnington III** is a field engineer at Schumberger in New Orleans, La.

Thomas Egan works for Beringer Co., Marblehead, Mass. . . . . **Tom Fawcett** has become a member of the technical staff at Mitre Corp., Bedford, Mass. . . . . **Peter Folta** is an assistant rate engineer at New England Gas & Electric, Cambridge, Mass. . . . . **Richard Forand** serves as an assistant engineer at Industrial Risk Insurers in Charlotte, N.C. . . . . **Carl Gates, Jr.** works as a sales representative at du Pont in Clifton, N.J.

Thomas Gellrich works for Exxon Chemical Co., Florham Park, N.J. . . . . **Jack Gregory** has joined Digital in Maynard, Mass. . . . . **Djelloul Haouari** is with Sonelec in Algeria. . . . . Data General, Southboro, Mass., has named **Scott Harvey** as a manufacturing engineer. . . . . **Jeffrey Hebert** has been named shift technical adviser at Yankee Atomic Electric, Rowe, Mass. . . . . **Claudia Huehmer** is with Boston Edison Co. in the Prudential Center, Boston. While at WPI, she co-designed a removal tool for a surveillance capsule in an atomic core. . . . . **Steve Kahn** continues at Bettis Labs in West Mifflin, Pa.

Kevin Keena is now a mechanical engineer at Digital in Marlboro, Mass. . . . . **Peter Kelleher** serves as an associate engineer-nuclear power engineering trainee at the Westinghouse Electric Naval Reactors Facility in Idaho Falls, Idaho. . . . . **Robert Kennedy** is a sales engineer for Westinghouse Power Systems, Framingham, Mass. . . . . **Christopher Kintz** has joined General Dynamics-Electric Boat in Groton, Conn. . . . . **David Konieczny** has joined Bechtel Power Corp., Gaithersburg, Md.

Anne-Marie Kruglewicz is employed at du Pont's Marshall Laboratory in Philadelphia. . . . . **John Letourneau** serves as a member of the technical staff at Bell Labs., Piscataway, N.J. . . . . **Gareth Kucinkas** is now a field engineer at Schlumberger Well Services in New Iberia, La. . . . . **Kevin Loftus** has been named a process engineer at Chemapee, Inc., Woodbury, N.Y. . . . . **Michael J. Lombardi** holds the post of contract engineer at Bechtel Power Corp., San Francisco, Calif.

Michael R. Lombardi has been employed as a support engineer at Stone & Webster, Boston. . . . . **Raymond Lucchetti, Jr.** is now a systems support engineer at Bunker Ramo Corp., Trumbull, Conn. . . . . **Thomas Lucey** works as a production engineer for Systems Intergration Engineering at Data General in Southboro, Mass. . . . . Stone & Webster, Cherry Hill, N.J., employs **Raymond Lum** as a career development engineer. . . . . **Deborah Luper** has joined Western Electric, Allentown, Pa.

Kevin Lynch is a member of the Rocketdyne Division of Rockwell International in Canoga Park, Calif. . . . . **Brian Mahoney** is on the technical staff at Mitre Corp., Bedford, Mass. . . . . **Carlos Maltos** is a customer assistant contact in the treasury department at Citibank in Mexico City. . . . . **Paul Mandeville** serves as a project engineer at Naval Ordnance, Indian Head, Md. . . . . **Kenneth Mandile** is a design engineer at GTE Sylvania, Strategic Systems Division, Lithium Battery Group, Waltham, Mass. . . . . **William Mangano, Jr.** has been employed as a survey statistician by the U.S. Census Bureau, Dept. of Commerce, in Suitland, Md. . . . . **John Manning, Jr.** is working for his MS in environmental health engineering at Notre Dame, where he is with the department of civil engineering.

Mario Marcaccio is an environmental engineer at Camp Dresser & McKee, Boston. . . . . **Ralph Marrone** has joined Hewlett-Packard, Lexington, Mass. as a systems engineer. . . . . Pratt & Whitney Aircraft Group, East Hartford, Conn., has named **Ronald Marshall** as a program analyst. . . . . **Gilbert Martin, Jr.** has accepted a post as nuelear plant engineer trainee with Westinghouse-Bettis Atomic Power Laboratory in Idaho Falls, Idaho. . . . . **Robert Martinek** is employed as a design engineer at Raytheon in Sudbury, Mass. . . . . **Anthony Masullo** was named a process engineer at Pfizer, Inc., Groton, Conn.

Joseph Mayall is a field service engineer at Babcoek & Wilcox. . . . . **John Mazeika** is a service engineer, level I, at Combustion Engineering in Windsor, Conn. . . . . **Thomas McBride** has joined Dresser Industries, Atlas Division, in Alice, Texas. . . . . 2/Lt. **H. Peter McClain**, who attended the U.S. Army Ordnance School at Aberdeen Proving Grounds in Maryland, was recently assigned to the Army Missile & Munitions Center, Redstone Arsenal, Alabama. . . . . **Darlene McCormick** is with the Westinghouse Oceanic Division in Annapolis, Md. . . . . **Cathleen McDermott** is now an engineering assistant for the County of Los Angeles Road Department, Los Angeles, Calif.

Linda McInnis works as a technical writer at Ampex Corporation, Redwood City, Calif. . . . . **Maryellen McLaughlin** aceepted a position as electronics engineer at Charles Stark Draper Laboratory in Cambridge, Mass. . . . . **Joan McNamara** was named as a process development engineer at Monsanto in Indian Orchard, Mass. . . . . **John McNeff II** has been hired by Procter & Gamble, Quincy, Mass., as a production engineer. . . . . **Brian McQuillan** serves as a human factors-system safety engineer at GTE Sylvania in Needham Heights, Mass. . . . . **Scott Mease** is now a field systems engineer for Danicls Construction Co. . . . . **Paula Mesite** is with Enseo, Ine., Springfield, Va. At night, she attends the master's program in electrical engineering at George Washington University.

Fred Mirabelle, Jr. is employed as a design engineer at Harris Corp., Westerly, R.I. . . . . **Michael Mitchell** works as a manufacturing engineer at Texas Instruments in Attleboro, Mass. . . . . **Serge Molinari** is a ficld service engineer at du Pont in LaPlace, La. . . . . Presently, **Patricia Monterio** serves as an assistant process engineer at Fluor Engineers & Constructors, Irvine, Calif. . . . . **Rosemary Murphy** holds the post of process development engineer for Critical Fluid Systems, Inc. (A.D. Little Labs) in Cambridge, Mass.

William Murtha was named as a manufacturing management trainee at GE. . . . . **John Neilon** attends grad school at the University of Miami. . . . . **John Noonan** works as a civil engineering assistant for LA County Flood Control, Los Angeles, Calif. . . . . **Paul Normand** has been employed by the Hamilton Standard Division of United Teehnologies, Windsor Locks, Conn. . . . . **Colleen O'Connor** is an information systems designer at Western Electrie in North Andover, Mass. . . . . **Thaddeus J. Okolo, Jr.** has been named a design engineer at Sikorsky Aircraft in Stratford, Conn.

David Olds has accepted the post of design engineer at the GE Direct Energy Conversion Center in Wilmington, Mass. . . . . **Mark O'Neil** works as an assembly planner at Intel in Santa Clara, Calif. . . . . **Elaine O'Neill** is now with Clairol in Stamford, Conn. . . . . **Robert Oriol** is employed by the Small Business Serviee Bureau in Worcester. . . . . **Ronald Ouellet** is with Texas Instruments in Dallas.

David Paciorkowski serves as a communications-electronics engineer for the U.S.A.F. at Keesler AFB, Miss. . . . . **Louis Palecki** was named as associate advance engineer at Honeywell's Electro-Optics Center in Lexington, Mass. He is a member of the Worcester Art Museum. . . . . **Michael Parulis** is employed as an associate engineer at General Dynamics-Electric Boat, Groton, Conn.

Robert Pearson is now a process engineer at Pfizer, Inc. in Groton, Conn. . . . . **Bjorn Pedersen** holds the post of manager of experimental engineering at Varian/Extrion in Gloucester, Mass. He has an MS in management from WPI. . . . . **William Perkins** is with ARRADCOM in Dover, N.J. . . . . Honeywell Electro Optics Center, Lexington, Mass., has employed **John Pierro** as an associate development engineer. . . . . **Paul Pietal** works as a statistician for the Bureau of the Census in Suitland, Md.

Currently, **John Pobuk** serves as a Peace Corps volunteer in Micronesia, where he is a water systems adviser. . . . . **John Podlenski** has joined KVB in New York City. . . . . **Thomas Polito** works as a graduate research assistant at WPI's Alden Labs.

Richard Preliasco is employed as an associate engineer at Lockheed Missiles & Space Co., Sunnyvale, Calif. . . . . **Mary Puzemis** holds the post of chemist at Environmental Waste Removal, Waterbury, Conn. . . . . **David Quaranta** is with the ME department at WPI. . . . . **James Racca** is now an associate engineer at B.F. Goodrich Chemical Division in Independence, Ohio.

Sanders Associates, Nashua, N.H. has named **Michael Ramadei** as a design engineer I. . . . . **Clifford Read** works as a product support engineer at Foxboro Company. . . . . **Cathy Reed** holds the position of project engineer at Badger America in Cambridge, Mass. . . . . **Craig Reed** is with du Pont at the Savannah River plant in Aiken, S.C. . . . . **David Reeves** has accepted the post of product development engineer at American Hoechst Corporation in Leominster, Mass. . . . . **Cathryn Ricci** serves as a process engineer at Berg Electronics, a division of du Pont in New Cumberland, Pa.

Charles Richards IV has joined Harris Corporation, Rochester, N.Y. . . . . **Ronald Richter** is with Analytical Systems Engineering Corporation. . . . . **Mark Riley** is a teaching assistant at Thayer School of Engineering, Dartmouth College. . . . . **Steven Robbins** has been named as a system analyst at Sanders Associates, Ine., Nashua, N.H. . . . . **Norman Robinson, Jr.** was employed as associate advanced manufaeturing engineer at Xerox Corp., Henrietta, N.Y.

John Roche works for Micro Networks, Worcester, in the manufacturing engineering department. . . . . **Jeffrey Rosen** has joined Stone & Webster in St. Francesville, La. . . . . **Richard Rotelli, Jr.** holds the post of structural engineer at Jordan, Apostal, Ritter Associates, Inc., in Davisville, R.I. . . . . **Elizabeth Roth** is a student at Hahnemann Medieal College, Philadelphia.

Charles Rothauser who holds an MSCS from WPI, works as a project analyst at United Technologies Researeh Center, East Hartford, Conn. He is a member of the Association of Computing Machinery. . . . . **Martin Rowe** has joined Analog Devices, Inc., Norwood, Mass. . . . . **Lee Sacks** is with ComputerVision in Bedford, Mass. . . . . **Thomas Sardella** accepted a post as electronies engineer with NASA at Goddard Space Flight Center, Greenbelt, Md.

Doreen Sa Vieira is working in applied research at Western Eleetrie Co., North Andover, Mass. . . . . **Gary Sawicki** serves as a manufacturing engineer at Texas Instruments, Attleboro, Mass. . . . . **Kenneth Sawyer** has joined Pratt & Whitney Aircraft, East Hartford, Conn., where he is employed as an analytical engineer. . . . . **Angelo Scangas** is a process engineer with National Starch and Chemical Corp., Plainfield, N.J.

David Schab works for Hughes Aircraft in Greenfield, Mass. . . . . **Peter Schoonmaker** is a junior engineer at Northern Research & Engineering Corp., Woburn, Mass. . . . . During the summer, **Sharon Schulze** worked for the Upper Blackstone Water Pollution Abatement Distriet in Millbury, Mass. She is a teaching assistant at WPI. . . . . **Craig Sherman** is employed at Thermo Electron Corp., Waltham, Mass. He has an MS from WPI.

Michael Slattery is a teehnical staff member in the Hughes Aircraft Ground Systems Group, Fullerton, Calif. . . . . **Charles Smith** is concerned with installation engineering at Western Electric in North Andover, Mass. . . . . **Chartsiri Sophonpanich** is a graduate student in chemical engineering at MIT. . . . . **Richard Stephens** has accepted a post as a sales engineer at Dana Industrial. The firm is located in Warren, Mich.

James Stonier works for Honeywell Information Systems of Billerica, Mass. . . . . **Charles Sullivan III** attends the University of Rhode Island, where he is studying for his MBA in finance. . . . . **James Sweeney III** is an Edison engineer at GE in Schenectady, N.Y.

. . . . **Keith Sylvestre** is with Northeast Utilities, Norwalk, Conn. . . . . **Edward Szkutak, Jr.** has been named a manufacturing engineer at Westinghouse. . . . . **Steve Tarantino** holds the post of process engineer at du Pont in Belle, West Virginia. . . . . **Pamela Thomas** has been employed as a manufacturing engineer at Communications Corp., Newport Beaeh, Calif.

Mark Tino was hired as a staff consultant in the Administrative Services Division at Arthur Andersen & Co., Boston. . . . . **John Titus** is a graduate student at WPI. . . . . **James Torrey, Jr.** has joined Arthur Andersen & Co., Hartford, Conn., where he is a staff member. . . . . **Gary Traverso** has been named as a research engineer at du Pont's Savannah River Plant, Aiken, S.C. . . . . **Gerald Twomey** is with LTX Corporation, Newton Highlands, Mass.

Edward Tyburski is a design engineer at Harris/Radio Frequeney Communications Division, Rochester, N.Y. . . . . **Robert Vozzola**, who has been with Redington Counters in Windsor, Conn., is slated to be stationed as an Air Force pilot and 2/Lt. at Columbus AFB in Mississippi in March. . . . . **Chuong Le Vu** is a member of the advanced engineering program at Honeywell Information Systems, Billeriea, Mass. . . . . **Bruce Webster** works as a manufaeturing engineer at Parker Manufacturing in Woreester. . . . . **David Weiss** was named a manufaeturing engineer at Eastman Kodak.

Richard Welch holds the position of quality control engineer at UNC Resources, Ine., Uncasville, Conn. . . . . Recently, **Peter Westcott** joined RCA Automated Systems Division, Burlington, Mass. . . . . **James Wilbur** works as a technical representative at Kemper Insuranee Company, North Quiney, Mass. . . . . **John Wilbur** is a manufacturing engineer with GE in Lynn, Mass. . . . . **David Wilson** has joined GTE Sylvania, Needham, Mass.

William Woishnis is employed as a plasties process engineer at Hewlett-Paekard Co., Palo Alto, Calif. . . . . **Rosemary Wojtowicz** is a graduate student at MIT. . . . . **Robert Woodard** works as an engineering field representative at Industrial Risk Insurers in Philadelphia. . . . . **Eric Worthington** serves as a programmer at Enseo, Ine., Springfield, Va.

Pamela Wright is a lab technieian in the life seiences department at WPI. . . . . **Ho Ling Yee** is with GCA Corp. (Teehnology Division) in Bedford, Mass. . . . . **Scott Yeomans** has been named an actuarial trainee at Travelers Insurance Company, Hartford, Conn. . . . . **H. Michael Yevak, Jr.** has been named a eomponent buyer in the GE manufacturing management program at Pittsfield, Mass.

Melissa Young has been employed by Teledyne Engineering Services, Inc., Waltham, Mass. . . . . **Robert Yule** is with du Pont in Belle, West Virginia. . . . . **John Zagorski** is studying for his doctorate in bioehemistry at Texas Tech in Lubbock, Texas. He received an assistant professorship for the fall term. . . . . **John Zelz, Jr.** is a staff engineer at Hewlett-Paekard, Fairport, N.Y.

School of Industrial Management

Harold White, '55, has been appointed vice president and general manager of Norton's Coated Abrasive Division in the United States. Previously, he was vice president and general manager of the company's Organic Grinding Wheel Division, and was also responsible for Norton's abrasives business in Canada. Prior to his appointment to that post in 1979, he served in England as vice president of abrasive operations in Northern Europe.

Nicholas Moffa, '56, was recently elected ehairman of the board of the Grinding Wheel Institute. The GWI is an assoeiation of U.S. manufacturers of grinding wheels with headquarters in Cleveland. Previously, Moffa served as the Institute's vice president in 1975 and 1976 and was eleeted its president in 1977. He also became president of Bay State Abrasives, Westboro, Mass. in 1977. In the role of chief executive at Bay State, he also directs the affairs of Anderson Operations, an industrial brush manufaeturer in Worcester and Felker Operations in Torrance, Conn. Felker produces diamond saw blades and a range of machines for eutting conerete, masonry, and tile. Moffa graduated from Northeastern and Harvard Business School's advanced management program, as well as WPI's School of Industrial Management.

Alfred Kastberg, '61, has retired as executive vice president of Henry L. Hanson, Inc., Worcester, and is living in Hopkinton, N.H.

John O'Malley, '62 was recently promoted to director of fiscal services at Holden (Mass.) District Hospital. He is responsible for all financial eash management, accounting, billing functions and data processing. He has been with the hospital since 1966. He was presented with the 1980 Founder's Award of the Massachusetts Chapter of the Hospital Financial Management Association. The award is given for outstanding service in ehapter activities. A director of the organization, O'Malley is also ehairman of its membership eommittee, and serves on the Founder's Awards Committee. He holds the post of ehairman of the Central Massachusetts Financial Counеil. He is a member of the Massachusetts Hospital Association's Standing Committee on Finance, where he is the only representative of a hospital having less than a 100-bed capacity. An MBA recipient from Anna Maria College, O'Malley currently teaehes in the MBA program there. He also teaches financial management in an undergraduate program at Woreester State College.

John Porrazzo, '63, serves as manager of engineering at Arrow Automotive Corporation in Hudson, Mass.

Stephen McCabe, '64, holds the post of direetor of operations at Armatron International, Melrose, Mass.

George Sonntag, '68, is employed at Cineinnati Milaeron-Heald in Worcester.

John J. Shields, '69, married Judith A. Morse in Hudson, New Hampshire on September 21, 1980. The bride, a sales representive for Digital Corporation, graduated from Vermont College. Her husband graduated from the School of Industrial Management at WPI and from Harvard School of Business Administration. He is vice president of Digital Corporation, Maynard, Mass.

Joseph Flynn, '70. serves as sales supervisor at Norton Co., Worcester.

Edward Dykstra, '73, is director of teehnieal services and EDP planning at Warner-Lambert Co. in Morris Plains, N.J.

Kenneth Paradis, '75, is manager of labor relations at Monsanto Enviro-Chemical Co., St. Louis, Missouri.

James Dineen, '78, is the controller and chief financial officer at Fitehburg Coated Produets in Scranton, Pa.

John Ellison, Jr., '78, has been named a vice president at Galileo Electro-Optics Corporation, Sturbridge, Mass. The viee president and general manager of Fused Products and Power Supplies, he will continue to be responsible for the entire fused fiber optic product line, ineluding all military and commercial face-plates, inverters, magnifiers, and image conduits. His prior experience includes the position of general manager for the Fiber Optics Division of American Optical Company and sales engineer for Conneetieut Light and Power. He holds a BS in industrial administration from the University of Conneeticut.

Milton Steen, '79, has been named local manager of the Attleboro office of Massachusetts Electric Co. He heads the newly created southeast district, whieh is a consolidation of the company's Attleboro, Hopedale, and Marlboro districts. Prior to his new post, Steen was manager of the company's Marlboro district, where he supervised electric operations and customer service. After two years in the Army, he joined Mass. Electric in 1961 as a student trainee. In 1962, he became a residential sales promotion representative in the Woreester office, and in 1964, district sales manager in the Weymouth district. Following a series of promotions, in 1975, he was named assistant director of consumer services for New England Electrie, the parent company of Mass. Electric. Steen is vice president of the United Fund of Westboro, as well as vice president of the local Chamber of Commerce and Rotary Club.

Neil Collins, '80, is now production administrator and project engineer at Daverman & Assoeiates in Syraeuse, N.Y. For the past two years he was ehairman of the Worcester County Section of IEEE.

Alan Fontaine, '80, has been named general foreman of paekaging, sani safe, and connoisseur departments at Russell Harrington Cutlery, Ine., Southbridge, Mass. He started at Russell Harrington in 1973 as a service man. He was promoted to management responsibilities, first as an assistant supervisor in 1975, then as supervisor in 1978.

Franklin C. Green, '06, died on March 20, 1980 in Portland, Oregon at the age of 94.

He was born on May 24, 1885 in Maui, Hawaii. In 1906, he received his BSEE from WPI. Two years later he earned his professional degree in electrical engineering. He was a retired high school teacher.

Leon H. Rice, '13, of Manchester, New Hampshire passed away in August.

A Manchester native, he was born on Oct. 28, 1890. While still at WPI, he joined Leighton Machine Co., Manchester, and remained with the firm until his retirement as treasurer 54 years later. In 1913, he graduated as a mechanical engineer.

Mr. Rice was a past president of the New Hampshire Manufacturers Association and past chairman of the State and City Industrial Councils.He also belonged to the Masons (32nd degree), and served as a trustee of the YMCA and the Methodist Church. His son, Leon, graduated from WPI in 1943.

Malcolm D. Campbell, '14, of Leesburg, Florida passed away on January 31, 1980.

A native of Reading, Mass., he was born on April 14, 1891. After studying at WPI, he later graduated from Massachusetts Agricultural College. In 1932 he received his MED from Boston Teachers College.

From 1918 to 1923 he was employed at Norfolk County Agricultural School, and from 1923 to 1956, he was with Dorchester High School, Boston. He retired in 1956 to travel around the world.

Mr. Campbell was a former president of both the New England Biological Association and the National Association of Biology Teachers. A past president of the Lawn Bowling Club of Milton, he was also a former president of the Town Club of Milton. He had been a Mason and a deputy of the Boy Scouts. Just prior to his death, he conducted a class of 27 in life history writing at the Hawthorne retirement community in Leesburg.

Ray C. Crouch, '14, of Dallas, Texas died on July 12, 1980.

In 1914 he graduated from WPI as a mechanical engineer. During his career, he was with Riter Conley, A.G. Reeves Construction Co., and Buffalo Tank, a division of Bethlehem Steel. He retired as works manager and sales manager from Buffalo Tank in 1958.

Mr. Crouch, who was born on June 12, 1890 in Thomaston, Conn., was a past member of the ASME, the American Welding Society, American Metals Society, and the National Safety Council. He had served as director of the Sewickley, Pa. YMCA, as church vestryman, and as a sector warden for Civil Defense during World War II. He was a former officer in the Northern New Jersey Chapter and Western New York Chapter of the Alumni Association.

Earl C. Hughes, '14, WPI trustee emeritus, died at his home in Jupiter, Florida on November 15, 1980.

Before retiring in 1959, Mr. Hughes was president and chairman of the board of Bay State Abrasives in Westboro, Mass. He joined Bay State in 1936, after serving as assistant sales manager of the Grinding Wheel Division at Norton Co. He was director of the L.S. Starrett Co., Athol; Warren Pumps, Inc., Warren; and the Associated Industries of Massachusetts. He held the post of president and chairman of the Grinding Wheel Institute.

A native of Worcester, he was born on Sept. 30, 1892. In 1914, he received his BSCE from WPI. He was awarded an honorary doctor of engineering degree in 1963.

Mr. Hughes, a member of Phi Gamma Delta, also belonged to the Worcester Art Museum, Newcomen Society, Massachusetts (and Worcester) Horticultural Society, four country clubs, the Worcester Committee on Foreign Relations, Worcester Economic Club, Worcester Natural History Society, the Masons, and the Worcester County Music Association. He was a trustee of Hahnemann Hospital and the Worcester County Hearing and Speech Center. For many years, he was a vestryman at All Saints Episcopal Church.

In 1917, during World War I, Mr. Hughes was commissioned a first lieutenant at officer's training camp in Plattsburgh, N.Y. Later, he was assigned to the Infantry, before being transferred to the Air Service. After spending three months at the MIT School of Military Aeronautics, he was assigned to the Aviation Military Repair Depot in Dallas, Texas. He was commanding officer of the 877th Aero Squadron before being discharged as a captain in 1919.

Besides being a life member of the WPI board of trustees, Mr. Hughes served WPI in many other capacities. He was, for example, chairman of Techni-Forum in 1955 and 1956; a representative on the Alumni Council from 1953 to 1955; and a member of the President's Advisory Council. Before retiring to Florida, he donated his home at 15 Regent St. to WPI, the residence now being the permanent home of the vice president and dean of the faculty. In 1975, he received the Herbert F. Taylor Award from the Alumni Association.

Earle E. Andrews, '15, a retired attorney, died in Rochester, New Hampshire on September 7, 1980 at the age of 91.

He was born on July 2, 1889 in Bingham, Me., and later became a member of the Class of 1915. He graduated from Boston University Law School in 1916. In 1917 he enlisted in the Army and continued in the active reserves, retiring as a captain in the Quartermaster Corps in 1942.

He was employed as a compensation trial attorney for the Lumberman's Mutual Casualty Co. of Boston until he retired in 1954. Then he was associated with the law firm of Horovitz and Horovitz, Boston, retiring in 1978.

A senior member of the Oklahoma Bar Association, he was a past member of the American Bar, the Middlesex Bar and the Massachusetts Bar Associations. He was an active member of the Masons. He belonged to ATO, the Doll Collectors of America, the Rushlight Club, the Massachusetts Society of Mayflower Descendants, and the Congregational Church. He served as a past chairman of the Winchester, Mass. Finance Committee. For several years, he was chairman of the Winchester Board of Public Welfare.

Raymond P. Lansing, '15, an internationally known inventor and a retired vice president of the Bendix Aviation Corp., died in Old Lyme, Connecticut on October 17, 1980. He was 86.

In 1951, Mr. Lansing was awarded an honorary doctor of science degree from WPI. At the time, he was vice president and director of Bendix Aviation. During his many years with the company, he contributed to the design of accessory devices upon which the efficient and safe operation of aircraft depends. In recognition of his efforts in World War II, he was one of 60 leaders of the aviation industry to receive a presidential award of merit and was especially cited for pioneer work in the field of aircraft instrument and accessory production.

After fifty years' association with the aviation industry, Mr. Lansing retired in 1965. He obtained 150 patents for aviation devices. One patent was for the first direct cranking aircraft engine starter which he developed for the World War I Liberty engine.

He joined Bendix in 1916 as an engineer for the Bijur Motor Appliance Co., and continued with the firm when it was acquired by the Bendix Eclipse Aviation Company. In 1929, he became vice president at Eclipse. He served as a group executive over the eastern divisions of Bendix, and was elected a director in 1945.

Mr. Lansing was an associate fellow of the American Institute of Aeronautics and Astronautics and a member of the Society of Automotive Engineers, American Ordnance Association, American Rocket Society, Bergen County Chamber of Commerce, New Jersey State Chamber of Commerce, and the Montclair Chapter of the Sons of the American Revolution. An advisor to Fairleigh Dickinson University, he was also a retired lieutenant commander in the U.S. Naval Reserve. He was born on Dec. 26, 1893 in Brooklyn, N.Y. In 1915, he graduated as a mechanical engineer from WPI. Formerly, he served as vice president of the Northern New Jersey chapter of the Alumni Association, and as a member of the President's Advisory Council. He held an honorary LLD from Fairleigh Dickinson.

Harold Nutt, '16, died in Fort Lauderdale, Florida on October 23, 1980, the day following the death of his wife, Margaret.

He graduated as a mechanical engineer from WPI in 1916. During his career, he was with B.F. Sturtevant Co., Fairbanks Morse, Premier Motor Co., and Durant Motors. From 1930 until he retired in 1962, he was vice president of engineering, then president, general manager, and chief executive officer of the Borg & Beck Division of Borg Warner Corp., Chicago.

Mr. Nutt belonged to Tau Beta Pi, Sigma Xi, and the Society of Automotive Engineers, which he formerly served as chairman of the Chicago section. In 1954, he was named vice president of passenger car engineering by the Society. A member of the Coral Ridge Yacht Club of Fort Lauderdale, he was also a former member of the South Shore Country Club, Chicago.

He was born in New Rochelle, N.Y. on Dec. 3, 1893. His brother, **Arthur Nutt**, also graduated from WPI in 1916.

Frederick W. Bauder, '20, professor emeritus of chemistry at Newark College of Engineering, passed away at Overlook Hospital in Summit, New Jersey on August 24, 1980. He was 83 years old.

For the past 12 years, Dr. Bauder was a consultant in industrial waste control for the joint meeting of Essex and Union Counties, a regional sewer system. He was a professor of chemistry at Newark College of Technology (New Jersey Institute of Technology) for 27 years. In 1945 he received his MS from Stevens Institute of Technology followed by a doctorate from Columbia University.

He belonged to Phi Sigma Kappa and Omicron Delta Kappa fraternities. A registered engineer, Dr. Bauder was a member of the American Society of Engineering. Also, he was a certified chemist and a fellow of the American Institute of Chemists the the American Chemists Society. He was a Navy veteran of World War I. A native of Newark, N.J., he was born on July 24, 1897.

Wilfred H. Howe, '22, retired chief engineer of the Foxboro Co., died on October 30, 1980 in Attleboro, Mass. He was 78.

From 1969 to 1975, he was a selectman in Sharon, Mass., and served on various town committees. He was chairman of the Harvard Business School Alumni Association, past president of the Sharon Rotary Club, and a Mason.

After graduating from WPI as an electrical engineer in 1922 and receiving his MBA from Harvard, Mr. Howe joined GE for two years. Later, he was employed by Alden Mfg. Co., Atlantic Precision Instrument Co., and Foxboro Co. He belonged to IEEE (fellow), ISA, the ASME, Phi Gamma Delta, Sigma Xi, and the Congregational Church. A Worcester native, he was born on March 13, 1902.

Stanley M. Townsend, '22, of Pleasant Hill, Tennessee passed away on August 31, 1980.

He was born on July 15, 1899 in Worcester. A member of the Class of 1922, he retired from Michigan Bell Telephone Company in 1961. Prior to his retirement, he was a partner in Jensen-Townsend Printing Co., from which he retired in 1977.

Mr. Townsend was a Past Master of the Masons and a past Noble Grand of the IOOF. He was a founder of the Museum of Arts & History, a member of the Salvation Army Advisory Board, and a chairman of the Board of the Visiting Nurses Association. He 1956 he was elected supervisor of Fort Gratiot Township.

W. Roy Carrick, '23, founder and president of the Carrick Agency of Worcester, Northbridge, and Hopedale, died at his home in East Douglas, Massachusetts on August 26, 1980. He was 78.

He had been in the insurance business for over fifty years, and was a former general agent of the Aetna Life Insurance Company of Worcester, a charter life underwriter, and a life member of the Million Dollar Round Table.

Mr. Carrick, a Worcester native, was born on December 8, 1901. He was a former director of the Old Colony Bank of Worcester County, and a member of the Masons, the Shrine, the Worcester Club, and the Congregational Church. He was a member of the Class of 1923, and belonged to Phi Gamma Delta.

Edwin M. Bailey, '25, a former member of the President's Advisory Council at WPI, died at his home in Amesbury, Massachusetts on September 10, 1980 following a brief illness.

At one time a Bailey Co. vice president, Mr. Bailey was also past chairman of the Amesbury BPW. He was born in Amesbury on April 27, 1902, and was a member of the Class of 1925.

He was employed by the Bailey Co. in Amesbury for 27 years, becoming vice president, treasurer, and secretary prior to retirement. Previously, he was with the Massachusetts Department of Public Works for 15 years. In World War II he was a civil engineer for the U.S. Navy in Kittery, Me., Melbourne, Fla., and Hitchcock, Texas. Also, he was an engineer for the Army along the New England coast.

Mr. Bailey was elected to the Amesbury Board of Sewer and Water Commissioners, and the Board of Public Works, which he served as chairman for seven years. He was active in the Masons and the Shrine, as well as the U.S. Power Squadron, in which he held the rank of navigator. A past commander of the Merrimack River Power Squadron, he was also a former commander of District 18 for squadrons in Essex County.

For the past 15 years, he and his wife traveled extensively. They had been around the world three times, and had visited all the European countries except two.

Vincent J. Goodwin, '25, former superintendent at Leland-Gifford, Worcester, died at Hahnemann Hospital on September 19, 1980. He was 79 years old.

An engineer at Leland-Gifford for fifty years, Mr. Goodwin retired in 1970. He was born in Worcester on Nov. 25, 1900, and graduated as a mechanical engineer from WPI in 1925. He belonged to SAE. He was the father of **Richard E. Goodwin** of the Class of 1955.

Julian B. Pendleton, '25, a retired civil engineer from Creole Petroleum Corp., died in Dunnellon, Florida on September 25, 1980. He was 77.

A native of Hardwick, Vt., he was born on Feb. 14, 1903. Prior to joining Creole Petroleum in 1929, he was employed by New England Power Co., and the Pennsylvania Highway Dept. In 1960, he retired from Creole. While with the firm, he was located for a number of years in Venezuela.

Mr. Pendleton belonged to SAE, the ASCE, the Masons, and the Lions Club. He received his BSCE in 1925.

Warren T. Wentworth, '26, died in Lynn, Massachusetts on October 28, 1980 following a brief illness. He was 78 years old.

Born in Tonawanda, N.Y. on Oct. 25, 1902, he was a member of the Class of 1926. He attended Yale.

Thirteen years ago he retired as a senior designer after 30 years at General Electric's River Works. Following retirement, he taught mathematics and drafting at Northeast Institute of Industrial Technology, Boston.

He belonged to the Amateur Telescope Club of Boston, and he was a supporter of the Lynn Philharmonic Orchestra and other musical organizations. He was a past president of the Greater Lynn Camera Club.

Duncan G. Jackson, '28, a well-known businessman in Nashua, New Hampshire, died in September at the age of 73.

He was born in Fall River, Mass. on Oct. 14, 1906, and later became a member of the Class of 1928. He was the owner and president of the former Nashua Grain Company, and until two years ago, had been a Ward 2 selectman.

Active in scouting for many years, he was the recipient of the Silver Beaver Award for distinguished service. He was a former chairman of the Algonquin District BSA. He was a Mason, a member of the Nashua Finance Club, and a veteran of World War II.

Luther Q. H. Chin, '29, died on November 20, 1980 at his home in Freeport, New York.

A Worcester native, he was born on Dec. 24, 1908. In 1929, he received his BSEE from WPI. Before he retired, he was a sales engineer with Westinghouse Electric International, New York City. From 1936 to 1944, he taught electrical engineering at National Central University in Nanking, China. Also, he had managed the Hong Fong Low Restaurant in Worcester, and served as a lecturer at the World's Fair in Chicago in 1933.

Mr. Chin belonged to the AIEE, the Chinese Institute of Engineers, Tau Beta Pi, and Sigma Xi. He was a licensed, professional engineer.

Norman W. Gaudreau, '37, retired president of Bay State Tool and Machine Co., Springfield, Massachusetts, died in August at the Bay State Medical Center.

In 1937, he graduated as a civil engineer from WPI. He had been with Bay State since 1939. Earlier, he worked for Factory Insurance Association. He belonged to the American Society of Tool Engineers, Army Ordnance Association, and the National Tool & Die Manufacturers.

He was a past president of the Connecticut Valley chapter of the Alumni Association, and a native of New Britain, Conn., where he was born on Oct. 9, 1913.

Charles H. Amidon, Jr., '39, a consultant at the Jamesbury Corp., died on November 17, 1980 in St. Vincent Hospital, Worcester. He was 63.

During his career, he was with Seth Thomas Clocks, Pullman-Standard, Heald Machine, Rodney Hunt Co., Foster Machine Co., Textile Machine Works, Butterworth Machine Co., and David Gessner Co. Several years ago, he became a self-employed consultant. He was a consultant for Jamesbury Corp., Worcester, for four years.

Mr. Amidon graduated as a mechanical engineer from WPI. He was a member of Tau Beta Pi, Theta Chi, the Worcester Art Museum, the Masons, and the Massachusetts Association for Retarded Children.

A registered, professional engineer, he also belonged to the ASME. He belonged to the Friends of the Worcester Public Library, Holden Historical Society, the Circus Historical Association, Circus Fans of America, and Circus Model Builders. An authority on circus history, he wrote and illustrated various circus books and magazines. He was born in Worcester on Aug. 25, 1917.

Melvin T. Rafuse, '39, died at his home in Holden, Massachusetts on August 14, 1980. He was 63.

He was born on Aug. 17, 1916 in Worcester. In 1939 he received his BSME from WPI. For 41 years he served as a sales engineer for Heald Machine Co., a division of Cincinnati Milacron in Worcester.

Mr. Rafuse belonged to the Zion Lutheran Church. He was a 32nd degree Mason, a member of the Eastern Star, the Scottish Hirams, Heald Hirams, all Scottish Rite Bodies, and the Massachusetts Consistory.

Merrill W. Wright, '41, a former industrialist and civic leader, died recently at his home in Leesburg, Florida at the age of 62.

The retired chairman of the board of G.F. Wright Steel & Wire Co., Worcester, Mr. Wright had also served as a president of the National Rifle Association. In 1976, he retired from Wright after 35 years of service. During his career, he was employed in the family company as assistant manager, company manager, treasurer, executive vice president, president, and chairman of the board.

He was concerned with civic affairs in Auburn, where he was a past chairman of the board of selectmen, as well as former chairman of the street lighting committee, and of the town hall rehabilitation committee. He belonged to the sidewalk committee, and was appointed a town police officer and Civil Defense director. He had been a trustee of the Congregational Church.

Mr. Wright was born in Worcester on Apr. 5, 1918. Later he enrolled at WPI and at Bryant and Stratton. He once said that from the age of five, he was "hooked on guns, ... possibly because my mother was a Hickock and there is a family connection with the famous U.S. marshal and pistol marksman, Wild Bill Hickock." He was a former secretary of the New England Police Revolver League.

Besides being a 32nd degree Mason and a Shriner, Mr. Wright was active in the Wire Institute of America, the Rotary, the Sea Scouts, and the U.S. Savings Bonds program. In Florida, he served as planning director of the Lake County Emergency Services and treasurer of Agro-Energy, a group formed to develop a process of conversion of citrus juices into methanol and which had developed engines to run on such fuel. He belonged to Alpha Tau Omega.

William C. Woods, Jr., 42, of Manhasset, New York passed away on November 6, 1980.

He was born on March 25, 1919 in New York City. After graduating as an electrical engineer from WPI, he saw active duty as a lieutenant in the U.S. Navy. In 1946, he joined Western Union. From 1952 to 1954 he served as a commander in the Navy. He was a senior engineer for Sperry Gyroscope for eleven years.

In 1965, he became a senior staff engineer at Grumman Aerospace Co., Bethpage, N.Y. He was a member of the IEEE and the IRE.

Frank H. Parsons, Jr., '45, co-owner of the Acushnet Fish Corp., died in New Bedford, Massachusetts on September 28, 1980.

He was born on Nov. 28, 1923 in Provincetown, Mass., and later became a member of the Class of 1945. He graduated from Massachusetts Maritime Academy. During World War II, he served in the Merchant Marine.

Besides being co-owner and vice president of Acushnet Fish Corp., Mr. Parsons was general manager of Capt. Frank's Seafood Market in New Bedford. He belonged to PKT.

Robert A. Hughes, '54 SIM, died on November 1, 1980 in Worcester at the age of 62.

A former plant superintendent at Rexnord Co., Worcester, he worked there for 37 years before retiring in 1973. He was a Worcester native, and lived in Paxton for 56 years. At one time, he belonged to the Sons of Paxton.

Arthur J. Soderberg, '55 SIM, died recently at Cape Cod Hospital in Hyannis, Mass. He was a retired purchasing agent for Coes Knife Co.

Alton C. Churbuck, '56, of Cotuit, Massachusetts was killed in an auto accident on March 12, 1980.

A native of Melrose, Mass., he was born on Feb. 16, 1934. He was a member of the Class of 1956, and received his BS from Boston University and his MBA from Harvard Business School. He belonged to Lambda Chi Alpha.

During his career, he was with Minneapolis Honeywell and Arthur Andersen & Co., Houston, Texas. He also served as president of Maple Wood Products Co.

Wilbur S. Ekman, '59, died on September 3, 1980 in Hartford, Connecticut. He was 43 years old.

For over twenty years he was a chemical engineer at Armstrong Rubber Co., where he served as a radial tire compounder. In his leisure hours, he was active with the Midget Football "Ray Tellier" League in West Haven.

A native of Hartford, he was born on June 16, 1937. He was a member of Lambda Chi Alpha. In 1959 he received his BS in chemical engineering from WPI.

Stanley V. MacNeill, '60 SIM, of Hudson, Massachusetts, died October 10, 1980. He was 66 years old.

Before retiring in 1978, he was maintenance manager for the Worcester Gas and Light Co. for 39 years. He had belonged to the Unitarian Church, the Masons, and the Rotary Club, and was an auxiliary police officer for the Marlborough Police Department. He was a notary public.

Robert M. Wallace, '60, a computer specialist, passed away in Dayton, Ohio on June 24, 1980 at the age of 42.

Since 1967, Wallace was employed by the Foreign Technology Division at Wright-Patterson AFB in Dayton. He was a pioneer in the field of machine translation: Russian to English. In June of 1979, he was invited by a Canadian company to participate in a panel discussion and present a paper to an international convention in Bermuda. In May of 1980, he was invited to preside at the 9th Mid-Year Meeting of the American Society for Information Science at Robert Morris College in Pittsburgh at a discussion of Automated Language Processing.

He belonged to Phi Kappa Theta, and was a graduate of the University of Massachusetts at Amherst. He was born on June 20, 1938 in Milford, Mass., and was a member of the Class of 1960.

Maurice D. Letourneau, '73, a former teacher at Quabbin Regional High School, died at his home in Oakham, Massachusetts on November 1, 1980. He was 42.

He graduated from Worcester State College, then received his MS in mathematics from WPI in 1973. Until last year, he had taught for several years at Quabbin Regional in Barre, Mass. He was a native of Holden.

Steven A. Spaulding, '78, was killed in an automobile accident on April 18, 1980 in Seattle, Washington at the age of 24.

At the time of his death, he was with the Boeing Company. After leaving WPI, he entered Virginia Polytechnic Institute and State University.

Gary F. Pietryk, '79, of Holyoke, Massachusetts died in a head-on automobile crash in Connecticut on October 26, 1980.

He was born on Sept. 19, 1957 in Holyoke, Mass. In 1979, he graduated as a mechanical engineer from WPI. He was employed by Combustion Engineering of Windsor, Conn., and belonged to the ASME.

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Spring 1981

WPI journal

WPI journal

Vol. 84, No. 5 Spring 1981

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Editor: H. Russell Kay

Alumni Information Editor: Ruth S. Trask

Designer: H. Russell Kay

Typesetting: County Photo Compositing, Inc., Jefferson, Mass.

Printing: Davis Press, Inc., Worcester, Mass.

Alumni Publications Committee: Donald E. Ross, '54, chairman; Robert C. Gosling, '68; Sidney Madwed, '49; Samuel W. Mencow, '37; Kathleen Molony, '77; Stanley P. Negus, Jr., '54.

Address all correspondence to the Editor, *The WPI Journal*, Worcester Polytechnic Institute, Worcester, Massachusetts 01609. Telephone (617) 753-1411.

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The WPI Journal (USPS ISSN no. 0148-6128) is published five times a year, quarterly plus a catalog issue (identified as no. 2) in September. Second Class postage paid at Worcester, Massachusetts.

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Tom Keil

Dr. Thomas H. Keil, professor of physics at WPI since 1967, practices what he teaches.

On campus, he is involved with energy-related projects covering solar design. Back home at his Dutch colonial on Roscland Road, he has put a number of his classroom theories into down-to-earth practical use—with rewarding results. "In 1968, we heated our 2000-sq. ft. house for $300," he reports. "In 1980, our heating bill for the same house was $300."

The Keils, who have an oil furnace, did not suddenly strike oil in their backyard. "We use the furnace only for backup heat," Keil explains. "Our primary heating sources are a coal stove and lots of glazing on the south side of the house, which provides a generous amount of free solar heat."

The sun also heats the hot water for his family of four. A few years back, he had a solar hot water collector installed on the roof. "With the tax credits allowed for such an installation, we've come out ahead there, too," he says. Not leaving anything to chance, Keil has added extra insulation to his middle-aged house, and built and installed interior shutters on the windows. "During the winter, we keep the shutters on the north side permanently closed." He grins. "We also keep on our sweaters and go into the kitchen with the coal stove, if we want to get warm. In the kitchen, the temperature is nearly 68 degrees. In the rest of the house, it's about 10 degrees cooler. But our bodies have adjusted to these temperatures quite well."

While it was his classroom interest in solar energy that led Keil to solar retrofit his home, it was his homegrown interest in woodworking and music that led him to teaching and performing back on campus.

"As a child, I enjoyed watching my father in his workshop, and I learned a lot about carpentry and woodworking from him," he reveals. "I also took piano lessons and began to appreciate music." Tom's two interests came together when he built a harpsichord from a kit. The venture was so successful that he decided to teach a harpsichord-making course at WPI's first Intersession in 1972.

"That first Intersession was of personal significance in another area, too," he confides. "The St. Louis String Quartet performed, and Max Rabinowitsj introduced me to the world of stringed instruments. Today I play the cello. As a matter of fact, a student and I played the cello, and Prof. Harit Majmudar played the tanpura, in a trio for the EE2001 class on its last day." Keil has also played with a piano trio which includes Jennifer Weininger, whose husband is Chemistry Professor Stephen Weininger.

So devoted is Tom to the cello that he carried a rented one down to the Washington Project Center where he was faculty advisor for a term last year. In Worcester, he continues to spend a lot of time practicing on the instrument. This summer, however, he won't be doing all of his practicing at home. "My wife, Nora, has given me a great gift," he says. "Ten days at Apple Hill Music Camp near Peterborough, N.H. I can spend over eight hours a day with chamber music!"

Of late, Tom has branched out into violin-making and is currently repairing an old violin for a student. He has not yet learned how to play the instrument. His 13-year-old daughter, Perry, however, is taking violin lessons. His son, Seth, 12, took bassoon lessons but prefers sports.

Summers find the Keil family in Nantucket. "We have a couple of small sailboats and take lots of day trips. The children have become so proficient that they can sail by themselves."

Interested in education at all levels, Tom was formerly an officer of the now defunct Friends of the Worcester Public Schools. He is about to become an incorporator of the Higgins Armory Museum, where Roger Perry, '45, director of public relations at WPI, serves as chairman. "The Higgins Armory is presently an important part of our projects program at WPI," he says. "This week, some of our students are concluding a project there, presenting an exhibition on foot combat.

Keil, who has been involved with the WPI Plan since its inception, is enthusiastic about projects which he calls, "the most successful part of the plan." In 1969, he served on and later became chairman of the curriculum committee. He was responsible for creating and editing the first operational catalog. He worked on the general implementation committee, and was on the committee which wrote the proposal to the National Science Foundation which was so important in implementing the plan.

"When I became physics department head in 1972, the plan was 95 percent implemented," he says. "I spent most of my time from 1972 to 1977 working on various aspects of the plan, particularly projects." In 1977, he relinquished his post as department head and went back to teaching full time.

He is still deeply involved with projects. Over the past three years, Keil, Jack Boyd (mechanical engineering), and Van Bluemel (physics) have been advisors for solar collector and solar pump design projects, which have become popular topics. Keil enjoys such projects as much as his students. "I like to relate physics to engineering."

Tom Keil not only like what he does, he's good at it. In 1978, he received the Outstanding Teacher Award from WPI. (And he still practices what he teaches!)

Planning your family's financial future

by Gilbert S. Osborn

THE ACCOMPANYING INTERVIEW with Conrad Teitell, special tax counsel to WPI, addresses a topic which we believe is—or should be—of compelling interest to everyone in the WPI family. We hope you will read it carefully, and consider its implications for your future and your family's security. Attorney Teitell is a recognized national authority on estate planning and related topics.

Incredible as it may seem, nearly half of all Americans with assets to pass along after they die fail to make wills. Consequently, their property is distributed by state law under generally rigid rules, and in many cases it goes to persons the owners would not have chosen as beneficiaries. Considering that executing a will is neither difficult nor expensive, it is difficult to understand why so many persons are reluctant to do so, thereby jeopardizing their loved ones and others whom they might otherwise benefit, including institutions like WPI.

Why is it so important to have a will? As Attorney Teitell points out, a properly drawn will is the only way to make sure that the property you leave at death will go to those whom you want to get it. Your will can guarantee that the distribution of your property will be a lasting memorial of your life and the values you hold in high regard. Your will can nominate the persons you choose to be the guardians of your minor children if they should become orphans; it can name an executor of your own choice to carry out the directions in your will; it can help your attorney to minimize the taxes and other costs payable at your death; it can provide security for any beneficiaries who may not be qualified to manage their inherited funds; and it can allow you to make a thoughtful bequest to WPI and to other institutions or organizations whose work you want to help perpetuate.

If you're like many WPI alumni, you probably drew up your will some time ago. Chances are, it reflected your wishes and directed that your estate would pass to your heirs according to your specific desires.

But, times and circumstances change—sometimes suddenly, sometimes almost imperceptibly. Changes in your family or perfessional situation; revisions in the Federal tax laws; the impact of relentless inflation; even a move to another state—these and other facts may comspire to undermine the validity of the most carefully thought out estate plan.

An effective estate plan should have two primary objectives: First, the conservation and optimum use of your assets to achieve maximum benefits for you and your family during your lifetime; and, second, the transfer of your assets to your heirs and other beneficiaries at your death with a minimum of shrinkage due to taxes and other costs. Attorney Teitell offers some especially helpful advice in this area.

Like individuals, institutions like WPI also must plan for the future. During the past decade, WPI has emerged among the front ranks of America's preeminent educational institutions, thanks in large measure to the enlightened generosity of earlier benefactors—Boynton, Salisbury, Kinnicutt, Gordon, and many others—who provided the financial foundations upon which later generations have helped WPI to grow and to prosper. The largest single gift in WPI's history—a bequest of $5 million in 1964 from the estate of George C. Gordon, Class of 1895—made possible the construction of the Gordon Library and also endowed the Leland P. Kinnicutt professorship of Chemistry.

In 1975, a bequest of more than $1 million from the estate of James H. Manning, '06, and Mrs. Manning endowed a revolving student loan fund, and another bequest from the estate of Levi Leonard Grant, former head of the Mathematics department and WPI's acting president from 1911 to 1913, generates substantial annual income for student financial aid.

But the good works such generous bequests help to make possible are by no means restricted to gifts of such magnitude, welcome as they are. Hundreds of bequests of more modest dimensions from alumni, widows of alumni, and other friends of WPI, have added immeasurably to the college's financial strength, and have contributed significantly to the growth of our endowment resources and our physical plant facilities. Currently, nearly 200 alumni, trustees, and other friends of WPI have advised us that they have included a provision for WPI in their estate planning. By so doing, they have become active partners in perpetuating and strengthening WPI's educational leadership.

Attorney Teitell also points out that there are several attractive ways by which alumni and friends of WPI may give property to the college during their lifetimes and still enjoy the income from that property together with attractive tax advantages, including reduced income and estate taxes. As inflation constantly pushes everyone into higher income tax brackets, these inter-vivos gift vehicles have become increasingly popular among our graduates and friends. During the past four years, for example, we have written six charitable remainder interest agreements with generous annual income to the donor, and another 27 persons are receiving quarterly income payments as participants in WPI's Life Income Fund and Pooled Life Income Fund. Details about these plans, and the attractive benefits they offer both for the donor and for WPI, are available from Gil Osborn, Director of Planned Giving, in the Office of University Relations.

As Teitell emphasizes, *every* person with assets to pass along should plan his or her estate carefully, in consultation with his or her own advisers. We subscribe wholeheartedly to this advice, and welcome the opportunity to discuss with you how you may include WPI in your estate planning, if you are so inclined. Of course, your estate plan should be tailored to fit your unique financial and personal objectives.

MARK TWAIN reportedly once told a friend, "of course I'm interested in the future, because I plan to spend the rest of my life there."

We hope that you share his feeling, and that these thoughts will help you to plan your future, and your family's, in a way that provides the security you, and they, deserve.

Things to consider in financial planning

An interview with WPI tax and estate-planning consultant Conrad Teitell

Q: MR. TEITELL, WHAT DO YOU CONSIDER THE ESSENTIALS OF AN EFFECTIVE ESTATE PLAN?

A: A satisfactory plan is far broader than many people realize. It involves three parts:

First is the creation of wealth. Otherwise you'll have nothing to pass along to others.

Second is the conservation of your assets so that you can enjoy them right now and still have something left for comfortable retirement, or to provide for your care should you become ill or disabled.

Finally, decisions must be made on what property you will leave to members of your family and others—and how to leave it.

All of this has to be done with the knowledge that there are three enemies of any estate: taxes, inflation, and the possibility of mismanagement. Proper planning can avoid the erosion of your assets by those three foes.

Q: IS REDUCTION OF TAXES A PRIME OBJECTIVE?

A: That's important, but it shouldn't distort your wishes. People can get so caught up in tax benefits that they forget what they want to do.

I'm reminded of a play by Paddy Chayefsky a few years ago. The hero was played by Zero Mostel. Toward the end of the play, Mostel, about to commit suicide, turned to the audience and said something like this: "Did you ever hear about the man who got married in order to take advantage of the joint return, who then got divorced in order to preserve his Liechtenstein tax status, and who finally, on the advice of his accountant, kills himself?"

In planning an estate, you certainly should consider taxes—and sometimes they will change the way you do something. But that's not where you start. First consider what you want to accomplish, and then determine what modifications may be necessary for tax reasons.

Q: IS AN "ESTATE" WHAT PEOPLE LEAVE BEHIND WHEN THEY DIE?

A: That's only one aspect of the term. You have an estate right now if you have accumulated any worldly goods at all. And you probably have been making estate plans without even realizing it.

For example, when you buy a life insurance policy, you make an estate decision about the sort of protection you are buying and who is boing to benefit on your death. Naming the beneficiary is important; so is ownership of the policy. It's often possible to take a million dollars' worth of insurance out of an estate just by having the beneficiary be the owner when the policy is purchased, or by transferring ownership if the policy already is in your name.

If you buy a house for yourself and your spouse and put it in joint names, you've made an estate decision—and sometimes not wisely, for there are pitfalls in owning property jointly. For example, the joint owner of property can't convey an interest in it to heirs or beneficiaries; the ownership interest passes to the surviving joint tenant. For that reason, joint ownership might cancel out provisions in a will.

Often, unnecessary gift and estate taxes are incurred by putting property in joint names. Get expert advice, and weigh the pros and cons, before you decide whether joint ownership is advisable in your case.

Another thing many people don't realize: If you haven't thought about who will eventually get your property—and specified your wishes in a will—the state where you live has a distribution plan all ready and waiting for you, and it may be just the opposite of what you'd have wanted.

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Q: WHY?

A: Because for people who die intestate—without leaving a will—arbitrary state laws determine to whom, how, and when your property will be distributed. Your close relatives will share in your estate, but frequently not in the same proportions you might have desired.

Q: WHAT MIGHT HAPPEN IN SUCH A CASE?

A: Suppose an individual who dies without a will leaves a spouse and two young children. In some states, his or her property will be distributed one-third to the surviving spouse and two-thirds to the children.

Because the children are minors, a guardian has to be appointed by the court. Although the spouse probably would be the one appointed, in most states he or she has to post a bond and pay bond premiums. The guardian has to bet court permission to use any part of the children's share of the estate for their support or education. And an accounting has to be filed each year with the court, detailing what the spouse did with the children's property. The spouse has to go to court to explain all this, and time and money will be spent in preparing the accounting.

Take another case, when a person dies leaving a spouse but no children. In many states, if you have no will, your spouse shares your estate with your parents, brothers, sisters, nephews, and nieces.

Thus, if you want to control where your property goes on your death, you need a will to carry out your instructions.

Q: IN THE CASE OF A MARRIED COUPLE, SHOULD BOTH PARTNERS HAVE WILLS?

A: Yes. Husband and wife should each have a will. Consider the married woman who has no large amount of property of her own because most of the family assets are in her husband's name. Although she hasn't much property now, she will have a substantial estate if her husband is the first to die and leaves all of his perperty to her.

If a wife dies after her husband—and without a will—her estate, including everything she inherited from him, will be distributed by the intestacy laws of her state. the husband's and wife's well-thought-out plans for children, grandchildren, and charitable organizations will be frustrated.

A wife shouldn't wait until she becomes a widow to make her own will. She will be under stress, and that's not the best time to make important financial plans. There's also the possibility that she may simply postpone making a will, and never get to it.

Q: SUPPOSE A WIFE OWNS PROPERTY OF HER OWN, AND WANTS HER HUSBAND TO HAVE ALL OF IT WHEN SHE DIES—

A: In that case, she needs a will to assure that he will inherit all of it. But it is important to leave the property in a way which saves estate taxes. When both husband and wife have substantial assets, the combined estate taxes on the husband's and wife's estates often can be reduced if the wife leaves half of her property to her husband and the other half to children, grandchildren, or charities. Or, she might elect to leave half of her estate outright to her husband and the rest to him in a trust. That will save estate taxes on his death. Only with a will can a wife accomplish these goals.

Q: DOES A SINGLE MAN OR WOMAN NEED A WILL?

A: Of course, so that he or she—not the state's inflexible rules—will determine who gets his or her property. With a will, a single man or woman can name an executor, create trusts for young or inexperienced heirs, benefit favorite charities. State intestacy laws, incidentally, do not provide for any charitable gifts.

Q: WHOM SHOULD ONE NAME AS EXECUTOR OF A WILL? CAN A MAN APPOINT HIS WIFE, OR A WIFE HER HUSBAND?

A: Yes. But the particular facts in each instance should rule that decision. If the assets are large, there may be complicated tax returns to file, valuations to be determined, investment decisions to be made. For these reasons, it's often advisable to have a bank or trust company, an experienced attorney, or other professional act as executor or trustee—or as coexecutor or cotrustee with a spouse or a close relative.

For example, my Uncle Henry may know nothing about investing, but he does know and care about my children. I have confidence that he will look out for their needs. So I may want to name Uncle Henry to act as cotrustee with the trust department of my local bank, and get the benefit of a linking of two areas of expertise.

Q: HAVE MANY INDIVIDUALS BUILT UP LARGER ESTATES THAN THEY REALIZE?

A: That's often the case today because of inflation and the growth of fringe benefits in business and industry. For example, many people have houses that are worth perhaps three or four times what they paid for them many years ago. That inflated value will show up in their estates, as will the proceeds from group insurance that many employers provide for their employees. Under these circumstances, a person can find thaqt his or her estate will be subject to tax—and often a hefty tax.

Q: You mentioned a tax on the proceeds of insurance. Aren't insurance benefits tax-free?

A: Insurance payments to a beneficiary are free from *income* tax, but they are subject to *estate* tax. Unless proper plans are made, a big insurance policy can increase the estate tax.

One way of getting around this, as I mentioned earlier, is for the family breadwinner to make a gift of his life insurance to his spouse. Assuming he transfers the ownership at least three years before his death, the insurance proceeds won't be part of his estate. If a policy with a large cash value is given away, there may be a gift tax on the present value, but you can be certain that the gift tax will be lower than the estate tax that would otherwise be imposed on the higher face value at death.

Let's say I have a 1-million-dollar policy, with a present value of $200,000. If I give that to my wife today, $200,000 is potentially subject to gift tax. If I die with that same policy in my estate, 1 million dollars will be subject to tax.

Q: Can a person make a gift of the group insurance policy provided by his or her employer?

A: Yes. Almost all states now authorize that. And since the value of group term insurance is very low—usually there's little or no current value—no gift-tax liability generally is incurred.

But it's important to note in giving away any type of life insurance that once ownership of a policy is transferred to another person, the original owner no longer has the right to change beneficiaries or to make any other changes.

Q: Congress rewrote the laws governing estate and gift taxes a few years ago—in the Tax Reform Act of 1976. Did those changes cut down somewhat on the cost of passing along wealth?

A: They increased the costs for some poeple and reduced them for others. Let's take a look at the law before 1976, and the way things stand now.

Under earlier law, an individual could give away each year, free of gift tax, property worth $3,000—$6,000 if a spouse concurred in the gift—to as many beneficiaries as desired. In addition, every individual had a separate lifetime gift allowance of $30,000—or $60,000 for a couple giving jointly. There were separate schedules for gift taxes and estate taxes. Taxes on gifts were about one-fourth lower than those on property passing through an estate. Moreover, gifts during one's lifetime reduced the size of the estate and thus reduced the amount of estate tax to be paid. Every estate had an exemption of $60,000 before any estate tax became payable.

Q: How did the 1976 law change all this?

A: It made no change in the annual gifts that one can make tax-free. It's still possible to give away $3,000 a year—or $6,000 with a spouse's concurrence—to as many beneficiaries as you wish.

But the additional lifetime gift allowance of $30,000 per person was abolished, and so was the $60,000 exemption from estate tax. However, these were replaced with a "unified" transfer tax credit. More about that in a minute.

The former separate gift and estate-tax rates were replaced with a progressive "unified" rate schedule applying to both gifts during life and at death. As matters stand now, any portion of the unified credit used against gift taxes during one's lifetime reduces the credit available to be used eventually against the estate tax. Note, however, that any number of annual gifts of $3,000—or $6,000 if a spouse agrees—can be made without cutting into the tax credit.

An estate is allowed a marital deduction for property passing to a spouse of up to $250,000 or one-half of the value of the adjusted gross estate—whichever is greater. Also, an individual can give a spouse up to $100,000 free of gift tax. But in that case, one's eventual estate-tax marital deduction may be decreased.

Q: How high are the rates on gift and estate taxes now?

A: As you can see from the accompanying table, the unified rates range from a low of 18 percent to a high of 70 percent on one's taxable estate. The table is deceptive, however. Without going into the technicalities, once you exhaust the unified credit, the bottom bracket is 32 percent—and not 18 percent. However, the unified credit against tax keeps a sizable amount out of the hands of the tax collector.

For married couples who plan carefully, the first spouse to die can leave an estate of more than $400,000 this year, and as much as $425,000 in 1981 and later years, and not be taxed at all by the federal government.

Q: How does that work out?

A: Congress specified that, beginning in 1977, estates should get a credit against any estate tax due. In 1977, the credit was $30,000; in 1978, $34,000; and in 1979, $38,000. In 1980 it moved up to $42,500. In 1981 and thereafter it will be $47,000.

Since $42,500 is the estate tax on about $161,000, the individual who died in 1980 would pass along $161,000 with no tax being due. Married people get an additional break: a marital deduction of 50 percent of the value of the adjusted gross estate, with a minimum deduction of up to $250,000.

So, for a spouse who dies in 1981 or thereafter, when the full $47,000 unified credit applies and a marital deduction has been provided for, there will be no estate tax if the estate doesn't exceed $425,000. Above that amount, the first dollar is subject to tax at an effective rate of 32 percent, and that rate goes up progressively with the size of the estate.

A basic point to keep in mind in estate planning is the need to look beyond what happens to just one estate. As I've noted, it's possible for a husband or wife to pass along to a surviving spouse more than $400,000 of assets free of estate tax. But without proper planning, the estate of the second to die can then be clobbered by the tax collector.

Q: ARE THERE WAYS TO MINIMIZE THE TAX ON A SURVIVING SPOUSE'S ESTATE?

A: That often can be done by making use of a trust. Let's consider the case of a humsband who has a $400,000 estate and wants his wife to have the use of all the family assets after he dies, but also wants to provide for their children.

Instead of giving his wife the maximum marital deduction allowed his estate, his will can specify that she get outright only the portion of the marital deduction that will reduce his estate tax to zero, taking into account the unified transfer tax credit.

The rest of his assets go into a trust which will pay income to his wife for her lifetime, and principal if she needs it—and on her death will be divided among the children. In that way, the wife's estate also will be free of estate tax. Without the trust, the wife's estate might have to

pay tens of thousands of dollars in taxes.

For the larger estate, a good plan often involves giving the surviving wife an amount equal to the maximum marital deduction outright or in trust, and giving her the balance of the estate in a trust which will benefit her for life but which will escape estate taxes on her death.

These are some examples of the advantages of trusts. There are many other possibilities. You might want a trust to protect a beneficiary against his inexperience in managing property, or against his financial folly. You can appoint a trustee who has wide discretion in deciding how and under what circumstances the income and principal of the trust should be distributed.

Q: ARE THERE DIFFERENT KINDS OF TRUSTS?

A: Yes. A trust that you set up during your lifetime is called a "living" or "intervivos" trust. A trust that is set up under your will—and that doesn't become effective until after your death—is called a "testamentary" trust.

Q: CAN TRUSTS OF VARIOUS KINDS HELP REDUCE ESTATE TAXES?

A: Yes, in many instances. But that is not always the prime purpose. A trust is also used for disposing of property and managing it, and for protecting heirs and beneficiaries. A lawyer can advise you whether a trust makes sense in your circumstances, and, if so, what type of trust you should create.

Q: HOW IS THE AMOUNT SUBJECT TO ESTATE TAX DETERMINED?

A: Oversimplified, total the items which go into the gross estate, such as securities, tangible personal property, real property, cash, mortgages, life insurance when the proceeds are either receivable by the estate or the decendent owned the policy. To this add one-half of any community property and the value of any jointly held property—which may be includable in the gross estate.

Then, subtract the decedent's debts, funeral expenses, estate-administration expenses, the marital deduction, the orphans' deduction, and charitable gifts. After all this, you arrive at the taxable estate—the amount potentially subject to tax. The unified credit reduces the tax, and in some cases wipes it out altogether.

Q: ARE THERE WAYS TO GIVE PROPERTY TO A COLLEGE, CHURCH, OR OTHER CHARITY AND STILL GET LIFE INCOME FROM THE PROPERTY?

A: Yes. It's an increasingly popular way of helping charities. Many people would like to make significant charitable gifts, but they just can't afford to part with the income from their assets. A person in this position can make a gift while he or she is alive, retain the income for life—as well as for the lifetime of a survivor, if that's desired—and get an immediate income-tax deduction as well as an eventual saving on estate taxes.

The Tax Bite on Gifts and Estates

The federal government taxes the value of property that people give away during their lifetimes, as well as that left to heirs at death.

The gift tax is paid by the donor. The estate tax is paid by the executor from the estate's assets.

Until a few years ago, the federal tax on gifts was a separate tax with lower rates than for estates—an encouragement to gift-giving. But a new law enacted in 1976 combined gifts and estates into a single tax schedule. Under its provisions, credits taken for gift taxes reduce the amount of credits available for use against the estate tax. The unified credit—$47,000 for persons who die after 1980—offsets the tentative tax up to the 32 percent rate. The highest rate is 70 percent, for transfers above 5 million dollars.

Before a tax is levied, an estate gets a marital deduction for property passing to a spouse of up to the greater of $250,000 or one-half of the adjusted gross estate.

The following shows taxes on property passed by gift or in taxable estates of $10,000 to 1 million dollars.

TAXABLE TRANSFER	TENTATIVE TAX
Up to $ 10,000	18%
$ 10,000-$ 20,000	$ 1,800 plus 20% over $ 10,000
$ 20,000-$ 40,000	$ 3,800 plus 22% over $ 20,000
$ 40,000-$ 60,000	$ 8,200 plus 24% over $ 40,000
$ 60,000-$ 80,000	$ 13,000 plus 26% over $ 60,000
$ 80,000-$100,000	$ 18,200 plus 28% over $ 80,000
$100,000-$150,000	$ 23,800 plus 30% over $100,000
$150,000-$250,000	$ 38,800 plus 32% over $150,000
$250,000-$500,000	$ 70,800 plus 34% over $250,000
$500,000-$750,000	$155,800 plus 37% over $500,000
$750,000-$1 million	$248,300 plus 39% over $750,000

The tax on taxable estates from over 1 million dollars to over 5 million dollars ranges from 41 percent to 70 percent.

Here's an example. Take a man who at age 70 creates a charitable trust with $100,000 of securities that cost him $30,000 many years ago. He tells the trustee, "I'm putting $100,000 into this trust, and every year you are to pay me 7 percent multiplied by the fair market value of the trust as revalued each year."

This year, if the securities in the trust are worth $100,000, the donor gets $7,000. Next year, if the value goes up to $110,000, he gets 7 percent times $110,000—or $7,700. If the income in any year isn't great enough to make the payment, the trustee dips into the principal to make the payment.

In this particular example, the donor would get an income-tax charitable deduction of $52,500. His deductionis not for the full $100,000 placed in the trust. Uncle Sam discounts the deduction for the actuarial value of the donor's retained life enjoyment. If he's in the 50 percent bracket, the $52,500 deduction saves him $26,250 in income taxes. And he's going to get a yearly payment from the trust for as long as he lives.

The annual payment could be 5 or 6 percent, or it could be 8 or 9 percent. The higher the annual payment, the smaller will be the income-tax charitable deduction.

Q: ARE THERE ADDITIONAL ADVANTAGES TO THIS KIND OF GIFT?

A: Yes. The tax savings can be even more significant. Suppose you have stock that cost you $30,000, and it's now worth $100,000—but it's only paying a 2 percent return. You want to sell. But you'd have a $70,000 capital gain, and the income tax on that would be, typically, $17,500.

If the property is transferred to a charitable trust, however, it can be sold with no tax whatever on the capital gain. Then the money can be reinvested in something with a higher yield. Adding the $26,250 income-tax savings generated by the charitable deduction to $17,500 saved in capital gains taxes makes a total tax savings of $43,750. You have, in effect, a $56,250 investment—and not a $100,000 investment—in this arrangement, because you saved $43,750 in taxes. Assume that you get a 7 percent return. That's $7,000 on your original $100,000 investment. But a $7,000 return on a $56,250 investment means a yield of 12.4 percent. And these days, you have to look at the real yield on your investments.

Many charitable trusts can be so invested that the payments received each year are not taxed at ordinary income-tax rates, but are either taxed as capital gains or are untaxed as a return of principal. That can be very attractive.

Q: ARE THERE OTHER PROVISIONS IN THE 1976 TAX REFORM ACT THAT CAN AFFECT THE TAXABILITY OF AN ESTATE?

A: Yes, there are several—with varying degrees of complexity. For example, an orphans' deduction sets up a formula for estate-tax deductions for bequests to orphan children. It specifies a deduction of $5,000 for every year the child is under 21. Suppose I die, leaving an 11-year-old child, and there is no other surviving parent. Subracting 11 from 21 and multiplying by $5,000 means that the child can get $50,000, free of estate tax.

Wealthy people should be concerned about so-called generation-skipping rules. Congress made it more difficult for families to hold property in trusts for generation after generation and avoid taxes as the property is handed down from children to grandchildren and so on. For example, if a trust provides income to a spouse for life, then to a son or daughter for life, with the remainder going to grandchildren, a generation-skipping tax may be imposed at the time of the son or daughter's death. The tax comes out of the assets of the trust. Within the new rules, there's a $250,000 exemption for property passed to grandchildren in this fashion. There are a number of pitfalls. Assets may become sugject to tax, just by naming the wrong person as trustee.

There's also a lower special-use valuation of property for people who own farms or real property used in a closely held business.

All these are points people should be aware of as they plan their estates. I've just mentioned general rules, and certainly not all of them. Every individual wiith substantial assets to pass along should consult his or her own adviser as to how the law applies in each particular case.

The coming crunch in the computer business,

or, Where are the people who will push the buttons?

BY RUSSELL KAY

Not so many years ago, if you wanted to suggest to someone a career that offered sure employment almost anywhere in the country combined with excellent job security, you mentioned public-school teaching.

Nowadays the teachers are out on the streets looking for work in the aftermath of declining student populations, inflation, and draconian tax-cutting measures. You don't suggest to anyone nowadays that teaching is a safe career.

What then?

Computers. If ever there was a field crying for people, it is this one—and it encompasses segments of virtually every other field that touches on, or is touched by, technology.

Computers. The new watchword for the rest of this century. Computers seem to be everywhere in our life; they pervade our technology. The growth of computer use in the last few years has been astounding, and yet projections for the near future make that recent growth seem small.

Computers. They bring a whole new range of possibilities, good and bad, to whatever they touch. They are, in many senses, magic machines.*

Yet they are still machines. They need to be researched and developed. They need to be designed. They need to be manufactured. They need to be sold. They need to be installed. They need to have programs written for them, or they become merely expensive space-heaters. They need to be maintained. They will break.

They need, most of all, an incredible number of people to do all those things. And therein lies our tale.

**I believe it was Arthur C. Clarke, the science-fiction writer, who first proposed the dictum that, to those unable to understand its workings, any sufficiently advanced technology is indistinguishable from magic.*

The marketplace

THE MANPOWER** PROBLEM in computer-related industries is enormous, and it provides a classic example of the laws of supply and demand in operation. Most of the new people needed will have to be trained in such areas as computer programming, information management, computer science, computer engineering, electrical engineering. An extraordinary demand for these people has arisen very rapidly, and the supply of people who can fill that is severely limited. Classical economics says that the price of the people will go up in this situation, and indeed it has. Salaries in computer-related jobs are higher than in most others, and they keep rising at a pace greater than inflation.

A look at figures for starting salaries for college graduates (bachelor's degrees) is revealing. The averages run from $12,700 for liberal arts graduates to $20,000 for computer science, to $22,000 in electrical engineering. By comparison with other technical disciplines, civil engineering averages $20,000, mechanical $22,000, and chemical $24,000. (These figures are national averages as of December 1980.)

Competition in the marketplace is incredibly intense. In St. Louis recently, the Association for Computing Machinery held its annual conference, an event which is for many people not much more than a giant job fair. There were over 300 organizations interviewing attendees for jobs. And it was often enough the case that an individual would spend part of his day behind the desk, interviewing candidates, and the rest of the day being interviewed himself!

The attractions of the computer field are quite something. And yet there are some very serious problems that must be tackled if the supply side of the issue is to be increased.

***I use the term 'manpower' in its generic, rather than its sex-specific sense. The first computer programmer in history was a woman, after whom the Department of Defense has named its new programming language*—ADA.

Teaching computer science

MOST OF THE PEOPLE NEEDED will have to have college or graduate training in their area. That means that they will need qualified college professors to teach them. And the basic requirement for teaching in a college is a PHD.

In 1980, there were 200 computer science PHD's graduated in this country. At the same time there were at least 1300 jobs advertised for these individuals, including 600 openings in colleges and universities. But the situation is worse than that. Of those 200 PHDS, some 50 to 55 percent will go directly into industry. Another 30 to 35 percent are foreign nationals who, for visa or other reasons, will be leaving the country and therefore cannot be available for teaching. That leaves 15 percent, or about 30 new people for the 600 positions.

The economics aren't good, either, for teaching about computers. At a school like WPI, the starting salary for a new assistant professor with a PHD (whether in computer science or any other department) is currently almost identical with the starting salaries of our bachelor's-degree graduates. With a brand-new PHD, however, industrial offers this year are in the neighborhood of $32,000–$45,000. Whatever incentive to earn a PHD that exists, therefore, is likely to be strongly biased in favor of industry and against teaching. This has an effect on the entire field, however: it becomes harder than ever for students to study computer science because there aren't enough qualified faculty available to teach. It's comparable to an agricultural situation where the price of corn is so high that, instead of reserving enough corn to seed next year's crop, everything is being sold right now. That's fine for the short term, but what do you plant, what do you harvest, what do you sell, and what do you eat next year?

And that isn't the end of the economics, either. One of the traditional attractions of college teaching is the opportunity for professors to engage in professional research in their fields—and indeed they must do so if they are to remain teachers under the usual "publish or perish" standards for promotion and tenure that exist at colleges and universities. Yet high teaching loads don't leave time for faculty to do research and publishing, so the high demand also works to the professional teaching disadvantage of college faculty.

Furthermore, to engage in computer science research takes time and equipment that often isn't available today. In the one-third-century history of computers as real machines, they have evolved through four distinct generations of technology: from vacuum tubes and relays, to discrete solid-state devices, to small-scale integrated circuits, to the current very large scale integration of components. No single academic department could hope to keep pace with this rapidly changing technology. Experimental facilities in most computer science departments across the country are therefore obsolescent and inferior to industrial facilities.

The cost of the equipment tends to create another problem, this one organizational in nature. Computer science is a laboratory discipline, and yet at WPI and at many other institutions, the computer science department has virtually no control over its primary laboratory equipment. That laboratory—in the form of the campus computer center—is an autonomous administrative structure. During 1979–80, 40 percent of the timesharing use of WPI's DEC-10 (since replaced by a more powerful DEC-20) was by CS students. But the CS department (currently located in Washburn) has one—count 'em, one—terminal which is permanently hardwired to the DEC-20. Every other terminal for the department and its faculty must be used on a dial-up basis, subject to the availability of an open line to the computer, at the slow speed of 30 characters per second. There is clearly no parallel with any other department's basic tools.

A recent report released by the Computer Science Board, a forum for the heads of the 67 computer-science-PHD-granting institutions (which do not include WPI) in the United States and Canada, indicated that for rather normal research, an average computer science department must plan to spend $25,000 to $30,000 per researcher—which includes graduate students as well as faculty members—in capital outlay over the next five years. For serious, state-of-the-art research, the figure is $55,00 to $75,000 per researcher. And to all these figures must be added approximately another 10 percent to 20 percent per year for maintenance and support.

UNDER THESE CIRCUMSTANCES, it is fair to say that anyone who does go into teaching must really want to teach. It is also fair to say that faculty morale and faculty retention are serious issues. It becomes harder and harder to compete with the attractions of industry, especially when industry sets up research facilities that have the freedom and atmosphere of universities combined with competitive salaries and up-to-date facilities. Experienced assistant professors can get industrial offers as high as $45,000.

And yet the need for faculty has never been greater. Nationally, the number of computer science faculty with PHDS has risen from 805 in 1975 to 825 in 1980, while the number of undergraduates in the field has doubled. When WPI started its computer science department in 1970, there were 24 undergraduate majors and six faculty. Today there are 220 undergraduate majoring in the field and nine faculty. The beginning computer course at WPI, CS 1001, which teaches how to program in FORTRAN, had 700 students enrolled this year. That single course represents a full teaching load for three to four computer science faculty.

Every computer science faculty member teaches evening courses, mostly given off campus, in addition to a full load of daytime courses and projects. The extra compensation for this additional evening work doesn't begin to compare with normal teaching salaries, much less what a faculty member could expect to earn by devoting that time to research. That our faculty continue to take on this extra load is more often out of loyalty to the continuing education students and their needs rather than a real desire for more teaching.

It cannot be too surprising, therefore, that finding and holding teachers is a problem. A search has been going on for over a year to find a computer science department head for WPI. What may be somewhat surprising is that holding students can also be a problem. Often a student takes a job in the summer or evenings working at computer programming. His employer offers that student an immediate full-time job, no college degree needed, at a $20,000 salary. That's very attractive, and it does take its toll of students. (That this practice is unfortunately short-sighted, both for the student and for the employer, is all too true.)

Prof. Stephen Alpert, acting head of WPI's computer science department, summed up the faculty situation this way: "It's Tuesday, right? I bet I could get on the phone to people in local industry and sell this entire department and everyone in it—lock, stock, and barrel—as a package. Everyone in the department would make significantly more money, no one would have to move because our work would still be in the area . . . and I bet I could wrap up the negotiations for all of this by the end of the week! That's how strong the demand for good, experienced CS people is."

The Electrical Engineering perspective

ELECTRICAL ENGINEERING is the other major discipline which is inevitably caught up in the computer whirl, because computers are electronic machines. For EE, moreover, computers are a growing part of their field. Computer engineering has clearly become one of the fundamental areas of electrical engineering, and every EE must be comfortable with the use of computers. A recent report by the Institute of Electrical and Electronics Engineers (IEEE) power group recommended three computer courses for all EEs, regardless of specialty.

But it is still only one part of electrical engineering. Professor Donald Eteson echoes the feelings of the WPI department when he remarks that an EE needs a broad education within the field. "The year I graduated, the University of Pennsylvania computer went on-line, and the first real paper on the transistor was published. If I hadn't gotten an education that would last, one that had staying power, my career would have been over the day I graduated!"

The EE department has not had the same difficulties as computer science in recruiting and keeping faculty. They have not established a special computer group (although there are certain members who are more interested than are others), because they feel every department member must be able to deal effectively with computers.

Although it has its own courses in computer engineering, the EE department has worked together with the CS people to develop a new interdisciplinary course, "Introduction to Microprocessors," which was offered for the first time last year. Other major involvement is primarily in projects, especially in the areas of power, communications, and biomedical engineering.

The EE perspective on equipment needs is somewhat different from that of CS. Eteson, in looking to the future, says that, "in a few years, the long-awaited computer millennium will arrive. It will then be standard practice in industry to provide each engineer with the desk-top equivalent of a PDP-11 minicomputer for his or her sole use. Going a few years beyond that, something equivalent in computing power to our DEC-20 will be able to sit on that desk top."

There is a reasonably strong rationale for saying, in effect, 'let's wait three years and we can get equipment that's twice as powerful for the same number of dollars.' The hidden cost of that wait, however, is that you then don't have access to those computers for three years, and this can have a serious impact on a department strongly rooted in current technology.

The EE department is currently in what Eteson describes as "a holding pattern" regarding computer equipment. "The future is clearly with distributed computing, and we will have to see how well such things as ethernet (a coaxial cable based local network system developed by Xerox) will fit in with WPI's educational needs." The department, after some discussion, has recently standardized all of its microprocessor teaching and development around a single chip, Intel's 8086, which uses 16 bits in each of its words.

Student access to computing (something which WPI has always boasted of), has become something of a problem, and promises to remain so, according to Eteson, until the next major change in campus computing power, perhaps four or five years off (remember, WPI's DEC-20 was just installed last summer!). All over the campus, however, microcomputers are sprouting up like weeds in a meadow. Several years ago some eighteen LSI-11 units were acquired, and these are being used in such various places as civil engineering, materials engineering, the University of Massachusetts Medical Center, and mechanical engineering, as well as EE and CS. Apple II micros have appeared in the mathematical sciences and materials engineering departments (and perhaps others, too).

It has been suggested, seriously, that perhaps the introductory computer course, CS 1001, be shifted away from FORTRAN, punched cards, and the campus computer center's Univac, and to UCSD Pascal (a dialect of the Pascal language developed at the University of California at San Diego) used on a series of small microcomputers (which would have to be obtained) where students would have to schedule time. Although this would provide a more modern introduction to computers and computer programming, as yet no serious study of the cost of this move, or its implications for faculty time, has been made.

Eteson sums up the equipment and curriculum situation this way: "If we work very hard at it, we can probably manage to stay not more than three or four years behind industry."

Continuing education: Glowing in the dark

One place to see the impact of the computer revolution is in WPI's continuing education programs of evening graduate courses and short seminars. Professor Robert Hall, director of the programs, notes that electrical engineering and computer science courses account for nearly half the offerings in the evening graduate program.

Growth in the industry has created a special requirement for employee training. One large local computer maker, for example, has plans to drastically increase its workforce in the next five years (estimates being heard range from 30,000 to 50,000 people to be added!)

This kind of growth in size means a building boom as well, and this feeds students into WPI's evening certificate program in plant engineering.

Another large manufacturer of computers and computer-based systems found itself unable to hire enough qualified people locally and went to national recruiting, but even this is not successful nowadays because of increased housing costs and the concomitant lowered mobility of people). So this company now is back to looking locally and retraining people to acquire the skills needed.

Hall notes that the number of evening students has risen dramatically in recent years. "In 1973–74, we had 250 students enrolled in the evening program. By 1979–80, that figure had tripled to nearly 800." He attributes this to the need for expanded knowledge plus the easier opportunities now available. WPI gives evening courses at a number of off-campus locations, including Digital Equipment Corporation, Data General, Raytheon, and Honeywell.

Hall also comments on what some students go through to get a degree. "We find that a number of people will work in a degree program for a year or two, then get transferred out of the immediate area, then cycle back in a couple of years. One recent graduate took six years and three employers to get his degree!"

WPI's newest continuing education effort has been aimed at providing a series of short, two- or three-day seminars in specific areas. Hall observes that one computer manufacturer sends its employees to WPI seminars in such numbers that it represents the largest single provider of students for these programs. He notes further that all the area computer industries, taken as a group, account for between 30 and 40 percent of all seminar attendees. To give you an idea of the numbers involved, in 1977–78, its second year of operation, the seminar program reached 600 people. In calendar 1980 over 2,500 were enrolled.

The outlook

In October 1980, the National Science Foundation and the Department of Education published a joint report, *Science & Engineering Education for the 1980's and* Beyond, which attempts to assess the adequacy of our educational system to meet the needs which are projected for the future. It observed that:

> Computer professional fields represent the single broad area in which there are clear shortages of personnel at all degree levels at the present time and where those shortages are projected to continue through 1990. . . . Trends for computer professionals have been similar to those for engineering; namely, rapidly rising undergraduate enrollments and decreasing PhD production.
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> . . . A good deal of the instruction now being offered may be obsolete simply because it makes use of obsolete equipment. A similar situation is evident in many computer profession departments. While this situation may not pose significant problems for the large employers of engineers that can afford on-the-job training for newly hired personnel, specialists argue that it could have appreciable effects on smaller companies and industries which traditionally have counted on new graduates to keep them abreast of the latest developments.
>
> The faculty shortage and equipment obsolescence problem [may mean] that the capacity of engineering schools and computer profession departments to accept and provide an adequate education to all qualified applicants may be reached during the present decade. . . . It is probably the case that long-term solutions to the faculty shortage, equipment obsolescence, and rigidity problems must derive from the establishment of close working relationships between universities and industry.

WPI, with its project-based curriculum, has a strong current involvement with industry. What the school is now exploring is the use of people in industry to help supplement faculty and thereby relieve some of the load, particularly in the computer-related areas. The recently announced joint venture with Emhart Corporation, for example, will involve numbers of Emhart personnel on campus working with students on the projects and research programs undertaken in the areas of robotics and industrial applications of current microprocessor technology.

This kind of cooperation will increase, and it will involve many different types of companies, for the simple reason that there is no other way in which industry or or the academic establishment can hope to meet the need for trained computer professionals.

Will these kinds of measures be enough to solve the severe shortage of trained professionals? Or will it be a case of too little, too late? Will the promise of the magic machines fade?

Ask again in five years.

Tech Old Timers

IT IS WITHOUT QUESTION one of WPI's most enthusiastic clubs. Its members meet once a month, September through May, and currently draw about 50 people to each meeting. Among the reasons for the group's success are that it is a fun group or retirees of diverse talents with a common interest in WPI and in surviving on a fixed income. Members can drop by WPI on the second Thursday of the month, enjoy a cup of "coffee and," and rap with classmates, former profs, and trustees—all of whom are represented in the TOT membership. The atmosphere is informal, the business meetings short, and the programs interesting and stimulating. There is a group of 25 or 30 members who feel so keen about the organization that they rarely miss a meeting.

The group was started in December 1958 with only 23 members, and its objective hs remained unchanged over the years: "To cultivate tge comradeship of older members of the Worcester Polytechnic Institute Alumniresiding in or near Worcester for sociability and exchange of ideas upon such topics of community or general interest as may suggest themselves, and especially those relating to the Institute." The club's simple, one-page bylaws have been revised in only minor details over the past 22 years in only minor details to reflect changing circumstances. And after 20 years, inflation caught up with TOT and they had to raise their dues from $1.00 per season to $2.00.

Many members have served the group as officers, usually for a two-year term. An example of extreme dedication is the case of Harrison Brown, '12, who was secretary of the club for its first 16 years! WPI furnishes a meeting place, and the mailings go out through the Alumni Office. Otherwise, the club is virtually self-sustaining. They get good speakers from WPI faculty and staff and tap the talents of their own members for travelogues and hobbies of special interest. There is no limit to the supply of good speakers, on a wide range of subjects, that they can get through members' contacts.

There is always a lot of good-natured kidding during the meetings and everyone joins in the fun. When Walter Dennen, '18, gets up to make an announcement, you can always count on a few humorous remarks about the current political scene, while Larry Larson, '20, provides a running commentary on the proceedings. Any attempt at formality on the part of an over-zealous member is summarily dismissed. In spite of all this, however, there are occasional technical and serious programs that can inspire some very searching questions.

Over the years there have been ups and downs, but membership has continued to grow. Alumni are retiring earlier, living longer, and liking it better. Only ten years ago TOT had about 700 members, while today there are over 150 active members. Another 150 alumni within easy driving distance of WPI are eligible to join. Qualifications: sense of humor, age 65 or retired.

Tech Old Timers at their September 1980 meeting:

Front row: Pete Marsaw '30, Dir Deranian '29, Ed Brown (faculty), Stan Knight '32, vice-president Howie Whittum '34, president Wally Dahlstrom '36, secretary-treasurer Bob Fowler '36, George Bartlett '38, George Garrison SIM '53, and Cy Hardy '26.

2nd row: Chet Doe '28, Erwin Mattson '23, Larry Backlin '28, Ted Schoonmaker '26, William Harrington '23, Karl Penney '28, Leight Wellman (faculty), Bert Anderson '34, Carl Backstrom '30, Al Glenn '33, and Wendell Davis '22.

3rd row: Phil MacArdle '27, Ted Englund '28, William Kosciak '36, Russ Hemenway '35, Roger Tarbox '28, Art Parsons '26, Chet Inman '14, Bob Chapman '21, Harold Baines '26, Forrest Nelson '28, and Art Miller '24.

4th row: Ray Bjork '26, John Hendrickson '33, Harold Hendrickson '36, Lester Sarty '28, Russ Field '22, Wayne Keith '22, Phil White '22, Edwin Tucker '32, and Frank Forsberg '18.

Back row: True Sanderson '31, Freeman Hawley '23, Ed Sawtell '38, Al Chase '36, John Whenman (faculty), Bill Locke (faculty), Don MacMillan '35, Irving Desper '21, George Parsons '22, Wally Gove '31, Walter Dennen '18, and Art Klebart '33.

1919

Austin Welch writes: "I've never seen anything written about a part (small) that WPI played in Robert Goddard's, '08, rocket work. What I recall is this. The present Skull building was used in 1916–1917 only by Tech News, and we met there, I think, at 4 P.M. every Monday or Tuesday. Then we were asked to relinquish the building and meet in Boynton instead. The next thing we knew, an assistant professor of physics named Haig was conducting rocket experiments for a Clark University man named Goddard.

I lived on Dean St. . . . . and the noise from the Skull building came straight through to my house. About once in two weeks, especially in winter, there would be quite a loud explosion during the night about 3 A.M.

I just thought that Prof. Haig and WPI should have some sort of recognition concerning the experiments."

1922

In 1965, after 41 years of teaching in the Civil Engineering Department at WPI, Prof. **Carl Meyer** retired to Winter Park, Fla. A year later he came out of retirement to enter a second professional career, which was as a section cellist in the eight-man cello section of the all-professional Florida Symphony Orchestra. He says, "Music, as my Tech friends know, had been my life-time avocation. My second career, that of a professional musician, ended after ten years of service with the Florida Symphony."

After his retirement, he continued his technical writing by producing the 4th edition of his textbook, *Route Surveying & Design* in 1969. The first edition of the book was published in 1949, and it quickly became the most widely used book in its field.

In preparation for the future, he took on a co-author, Prof. David Gibson of the University of Florida. In 1980 their joint efforts culminated in a 5th edition, published by Harper & Row.

Prof. Meyer takes great pride in the staying power of his book. It continues to be the leader in its field, and already has been used by more than 275 different universities, colleges, and technical institutes.

He writes: "I like to remind friends that when they drive over a nicely-banked and spiraled curve on any Interstate Highway, the chances are better than 50-50 that the curve was computed and built with the aid of the theory and tables in *Route Surveying & Design*."

1925

O. Arnold Hansen was recently named "Engineer of the Year" by the Eric-Niagara Chapter of the New York State Society of Professional Engineers. "Ole" started his career with the White Motor Co. of Cleveland, Ohio following his graduation from WPI. On his last day of work at White, he drew a sketch of the automatic clutch for a fellow worker who was baffled by an engine clutch problem. That sketch was the basis for the first several patents issued in his name.

After leaving White, he joined Linde in Buffalo, N.Y., and worked on the problems associated with Eveready Prestone as it was then manufactured. Following the solution to those problems, he turned his attention to liquid oxygen distribution. This was new in the U.S. and was carried out with German equipment. In this field, Hansen instigated the development of several new processes and equipment on which over 25 patents were issued in his name. Articles concerning this work were published by "Mechanical Engineering" and "Chemical Engineering."

His innovative approach to problems led him into a wide variety of investigations ranging from rupture characteristics of high pressure gas cylinders to the revitalization of spent oil wells, from building plans for laboratory expansion, to representation of the company in college relationships.

He retired early, but worked for a time at Firewell to complete a project which provided liquid nitrogen cooling for infra-red detectors on military aircraft, and at Bell Aerosystems on the development of positive propulsion fuel tanks for the Minuteman Missile.

Civic-minded, Hansen has served as a past president of the local chapter of the Society of Automotive Engineers, and of the governing board of his church. He was the architect and supervised the building of a Girl Scout lodge, and taught several engineering courses at Erie Community College.

1927

Percival Lowell's son-in-law has joined him in managing the Pert Lowell Company which manufactures mast hoops and sail hanks, among other things. Lowell is located in Newbury, Mass.

1928

William Lester is president of William Lester Corp., Livingston, N.J.

Although retired since 1969, **Donald Reed** leads an active life in Millbury, Mass. He does a considerable amount of church work, especially along managerial and financial lines. Occasionally he also helps out with the nursery school.

1929

Arthur Knight writes from Vermont that the *National Geographic* special report entitled "Energy," and the Exxon magazine, *Oil Ways*, should be required reading for prospective engineers as well as the general public—anyone interested in the energy scene. He and Helen ("not boob tube addicts") try to keep up with what's going on by reading a host of publications, including *Antiques Magazine*, *Book Digest*, and *Smithsonian* magazine. The Knights have maintained a sense of humor. They forwarded a clip from *Forbes* which lists "aging" standards. One of the standards allegedly is: "You sink your teeth into a steak, and they stay there!" Knight is a trustee emeritus of WPI.

1931 REUNION JUNE 4,5,6,7

The 50th reunion committee has been hard at work since last fall. Members are **Ralph Hodgkinson**, **Frannie Townsend**, **Ed Bayon**, **Al Demont**, **Wally Gove**, **Frank Andrews**, **Ed Odlum**, **Fred Farrar**, **Bob Taylor**, **Ted Coe**, **Red Underhill**, and **Bob Barrett**, chairman of the class gift committee. The latest meeting was held in the form of a telethon from the Alumni Office on Sunday, March 15th.

Frank Andrews, who retired from Watertown Arsenal in 1967 with 27 years of government service, still works as a self-employed civil engineer. He says he's a bachelor and a golfer, "but may settle down one of these days."

Francis Burgoyne is retired. Formerly, he was clerk of the works for the YMCA, Greendale branch, Worcester.

Nothing negative about this feedback!

SANTA CLAUS ARRIVED A WEEK EARLY at the home of Harold S. Black, '21, last December. "On December 17th, to be exact," he explains. "That was the day that I was officially notified that I had been elected to the National Inventors Hall of Fame. What a Christmas present! The best honor yet!"

He chuckles. "It just goes to show, that if you live long enough, a lost of things can come your way." 83-year-old Harold Black, the originator of the negative feedback theory, has won countless awards from the scientific community. His large library abounds with them. But the latest is by far, the sweetest.

Since its inception in 1973, the National Inventors Hall of Fame has selected 38 inventors to its ranks, including two eminent WPI alumni, Robert Goddard, '08, and Dr. Black. Among the first members were Thomas Edison, Alexander Graham Bell, and Eli Whitney. Two others, Charles Kettering, who invented the first electrical ignition system for the automobile, and Carl Djerassi, who formulated the birth control pill, were previously tapped by WPI to receive honorary degrees. Dr. Black also received an honorary doctor of engineering degree at WPI in 1955.

The National Inventors Hall of Fame is dedicated to the individuals who conceived the great technological advances which are fostered by the patent system. The purpose of the Hall is to honor these inventors and bring public recognition to them and to their contributions to the nation's welfare.

Inventors are selected for the Hall of Fame by a selection committee composed of representatives from national scientific and technical organizations. The committee considers whether the invention of the nominee is covered by a U.S. patent, the contributions of the invention to the nation's welfare, and the extent to which it promotes the progress of science and useful arts.

C. Marshall Dann, '35, a current WPI trustee and former head of the U.S. Patent and Trademark Office (which helped establish the Inventors Hall of Fame), comments on the magnitude of the latest honor bestowed on his fellow alumnus.

"Election to the National Inventors Hall of Fame is one of the highest tributes that an inventor can receive," he says. "Dr. Black is to be congratulated. He now joins the ranks of Edison, the Wright brothers, and Marconi. His selection into such a prestigious fraternity reflects great credit on WPI."

In his former post as Commissioner of Patents, Marshall Dann took part in the 1977 Hall of Fame induction ceremonies for Dr. Edwin Land of Polaroid Land camera fame. "I presented him with his 498th, 499th, and 500th patents," he recalls. "Also, in 1979, I was host to the Goddard party, when another WPI alumnus, Robert Goddard, was posthumously inducted into the National Inventors Hall of Fame."

On February 8th Dr. Harold Black was in Arlington, Va. to participate in this year's induction ceremonies. "It was a wonderful evening," he says with enthusiasm. "Even though I barely had time to taste my dinner. First, Bell Labs (his former employer for 42 years) sent a limousine around to take us to the ceremony. Once we arrived, Channel 13 interviewed me for an hour and a half for an upcoming TV series called "Creativity." A lot of other reporters and photographers were on hand, too, and I guess they were doing their job. Some friends of ours told us later that they had seen us on TV way out in Kansas."

A model of Dr. Black's negative feedback amplifier, which revolutionized electronic communications, was on display at the Hall of Fame during the ceremonies. Black developed the theory of negative feedback for solving distortion problems back in 1927 while he was crossing the Hudson River on the Lackawanna ferry on his way to work at Bell. After several years of wrestling with the problem, he suddenly realized a solution. By feeding part of the amplifier's output back into the device along with the normal input, but in reverse phase, and then keeping the device from oscillating, he would have exactly what he wanted: a means of canceling out the distortion which was introduced by the amplifier.

He opened his morning newspaper, and on a blank page of the New York Times he sketched a simple diagram of a negative feedback amplifier plus the equations for the amplification with feedback.

It took ten years for Black to receive his "Wave Translation System" patent, primarily because it was such a revolutionary idea that the Patent Office didn't believe that it would work. His invention required a patent application of 42 pages of text, 9 pages of 126 claims, and 33 pages depicting 75 figures or drawings. The reason for its extraordinary length was that the invention was in a new field, whose principles were not understood at the time, although today they are well known and commonly used.

Initially important in transcontinental and trans-Atlantic telecommunications, negative feedback has also been widely applied to industrial, military and consumer electronics, weaponry, analog computers, and such devices as pacemakers. It has had a marked impact on ra-

dio, television, public address systems, sound recording, chemical control systems, spacecraft guidance systems, and electrical power supply circuits.

Even today, Black's theory, later refined by himself and others at Bell Labs, continues to find new applications. "Negative feedback amplifiers are still essential," he comments. "I have seen hundreds of thousands of uses. There are almost an endless number of possibilities."

Dr. Black was with Bell Labs from 1921 until his retirement in 1963. Later, he became principal research scientist at General Precision Corporation. Since 1966, he has been a communications consultant, also primarily concerned with negative feedback systems for the blind and deaf.

Throughout his long, distinguished career, Dr. Black has received 62 U.S. patents and 271 foreign patents. He holds eleven fellowships and 19 memberships in professional societies. He is listed in a number of notable publications such as *Who's Who in Science*, *Who's Who in America*, and *Who's Who in Engineering*, as well as in *Who's Who in the World* and *Who's Who in Aviation*. An author, he has written 42 articles.

Among his numerous awards are: The 1934 American Institute of Electrical Engineers National Best Paper Prize in Theory and Research; the 1940 Modern Pioneer Award on the Frontier of American Industry by the National Association of Manufacturers; the Franklin Institute John Price Wetherill Medal; the U.S. War Department Certificate of Appreciation in 1946; the Research Corporation Award in 1952; the AIEE Lamme Gold Medal in 1957; and the Audio Engineering Society's John H. Potts Memorial Award.

Dr. Black acknowledges that he has been fortunate to have been the recipient of so many awards. "Each has meant a lot to me," he confides. "But being named to the National Inventors Hall of Fame means the most."

The U.S. patent system, which cites the foremost inventors for their contributions to science and society through its Hall of Fame, once received an apt tribute from President Abraham Lincoln, also an inventor. He said: "The patent system added the fuel of interest to the fire of genius."

At 83, Dr. Harold Stephen Black has received the highest honor that the patent system can bestow—induction into the National Inventors Hall of Fame. And his personal "fire of genius" is still very much aglow. The native of Leominster, Mass. describes his great gift more simply. "Call it Yankee ingenuity," he says.

His latest interest in to be the first to find an *ideal* solution to the continuing quest for 3-D television.

Ever since **Ben Chadwick** sold his hardware business in 1969, he and his wife have been on the go. For several years they enjoyed freighter travel and visited ports in Africa, the Orient, Australia, New Zealand, the eastern Arctic, Newfoundland and Labrador. During their last freighter trip, they went 200 miles by river into the interior of Venezuela.

Now past the age limit (65) for freighter travel, they have purchased an Airstream trailer. In February, they were slated to go on a five-week caravan to the Baja Peninsula. The Chadwicks have also been on a number of alumni trips.

In 1965, **Paul Fittz** retired from Sears Roebuck after 28 years with the company. The last few years, he was plant engineer at the Sears mail order plant in Philadelphia. After retirement, he returned to Massachusetts (North New Salem). Subsequently, he became vice president of the Orange Savings Bank and president of the Kiwanis, as well as chairman of the New Salem Planning Board, when zoning was adopted. In 1968, he retired as a captain from the USNR. With his wife, Dorothy, he taught round dancing from 1972 to 1978. The Fittzes have two daughters and six grandchildren. Three years ago, Paul suffered a major stroke.

Still associated with the Athol (Mass.) Historical Society, **M. Dexter Gleason** also conducts tours through the Athol Public Works and L. S. Starrett Co.

Otie Mace recently sold his electrical contracting business and is now a consulting engineer. He writes, "I am looking forward to having more time off."

Formerly with W. M. Steele Co., Inc. Worcester, **George Munson** is now retired and living in Daytona Beach, Fla.

John Tuthill of Orient, N.Y. says that since his retirement from du Pont, he has "played at commercial fishing."

1933

The **Jim Rafters**, who were married in July, now have two houses, one of which they intend to update and sell. Jim reports that he plays golf frequently and occasionally wins a drink or two from his playing companions.

1936

Although officially retired, **J. Edward Guild** did a consulting job last winter for Reynolds Metals Co. in Richmond, Va. The Guilds keep busy with church assignments and genealogical research.

As he approaches his 45th reunion, **John Wyman** waxes poetic from Maine. He writes: "There was a Tech grad. named John, who enjoyed the noise of the throng. When it came to time to retire, he said, 'I don't tire.' So around, he's still kicking the gong." John, who says limerick writing is a hobby, hopes to attend his 45th with Dee.

1937

William Brown says that he retired from Rockwell International last July and is enjoying himself.

Caleb (Bud) **Hammond**, chairman of the board of Hammond Incorporated, Maplewood, N.J., retired recently after 41 years. At the board of directors meeting at which his retirement was announced, a testimonial was presented to him by his brother, Stuart L. Hammond, president of the firm. The resolution cited Hammond for his "unfailing sense of perception and his most capable leadership as chairman and president." In appreciation of his many years of service, he was named chairman emeritus. Currently, Hammond is active as a WPI trustee, chairman of the Maplewood Bank & Trust Co., and trustee of the Medical Center at Orange, N.J. Also, he holds the post of director of Summit Bancorporation.

Richard Lyman, vice president of New England Electric System, Wesboro, Mass., retired March 31st. He had been with the company for 43 years and nine months. Dick was instrumental in setting up the new matching gift program at his firm.

A. Hamilton Powell has returned to Leesburg, Fla., after his overseas mission of designing and installing electrical systems for mission buildings in Kenya and Italy.

1938

Paul Bergstrom retired last November. Presently, he is keeping busy with volunteer work and home projects. He plans to travel this summer.

Bernard Lovelace, formerly manager of engineering at Raytheon in Bedford, Mass., is now retired.

A. George Mallis is semi-retired, but remains active as a consulting engineer. Presently, he is working on a new revision to "Comprehensive Catalogue & Encyclopedia of U.S. Morgan and Peace Dollars", the due date being 1982.

Recently, **Henry Ritz** was re-elected president of the Plumbing and Heating Wholesalers of New England for 1981. He is president of the R & R Plumbing Supply Corporation, Worcester. He has a degree in business and engineering from Northeastern University and took a management course at the Harvard School of Business Administration. Active in fraternal and civic groups, he was past vice president of B'nai B'rith Lodge and the Zionist Organization of America.

Warren Schafer, formerly a production supervisor and chemist for Diamond National Corp., retired on Dec. 1, 1980.

In January, **Robert Taft**, senior vice president of Industrial Risk Insurers, retired following 42 years of service. With the exception of four-year's service as a Navy pilot during World War II, he spent his entire career at IRI. In the 1950's, he was field manager of the Atlanta office; in the 1960's, manager of the eastern regional office; and in the 1970's, a member of IRI's national staff.

He was instrumental in overseeing the formation and growth of the Canadian Industrial Risk Insurers and played a major role in the consolidation of the Oil Insurance Association and the Factory Insurance Association into IRI in 1975.

A former president of the WPI Alumni Association, Taft also received the Herbert F. Taylor Award. Most recently, he was named head of a campaign to develop a graduate program in fire protection engineering at WPI's Center for Fire Safety Studies.

Industrial Risk Insurers, an association of 45 leading insurance companies, underwrites some 47,000 industrial and commercial properties in over 60 countries. Insurance in force exceeds $575 billion.

1939

Walter Abel has been elected president of Computer Aided Manufacturing, International, Inc., a non-profit membership body formed in 1972 to advance manufacturing productivity through computerization. He will also be a member of the CAM-I board of directors. Abel serves as vice president of research and development for Emhart Corp. He joined Emhart's USM subsidiary in 1939, was responsible for establishing the unit's research departent and, later, for the creation of the Central Research Division. He is a member of the Industry Advisory Board at MIT's Laboratory for Manufacturing and Productivity. A past president of the Industrial Research Institute, he later chaired the committee that published the IRI's Definition of Research and Development. CAM-1, which he now serves as president, is a worldwide body of some 130 members supported by more than 85 industrial companies and 45 educational organizations and governmental groups in the U.S., Australia, Europe, and Japan. The organization's objective is to develop and test advanced prototype systems based on computer-aided design and computer-aided manufacture.

Albert Lavan has retired from the research and development department at Antex Fibers, Inc.

Last year, the **Carl Lewins** visited **Jack Boyd** at his hillside home on Lake Winnipesaukee in Gilford, N.H.**Bob O'Malley** has retired. Formerly, he was an administrator at Cowell Hospital, Davis, Calif.

1940

Raymond Forkey, former president of Coppus Engineering, Worcester, formally retired in January. For the past year he has served as employee- consultant to insure a smooth transition of Coppus to its new owner, the Spenax Corp. of Shelbyville, Ind. Coppus manufactures industrial turbines, blowers, and gas and oil burners. When Forkey joined the firm 28 years ago, sales were less than $2 million. Last year sales were over $20 million. Earlier, Forkey worked in the sales department at Norton Company before starting at Coppus in 1952. He has served as a corporator of the Worcester Five Cents Savings Bank (now Consumers Bank) and the Worcester Science Center, as director of Riley Stoker, and as a trustee of WPI, Worcester Academy and Hahnemann Hospital. He is a past president of the Worcester Area Chamber of Commerce and recipient of WPI's Robert H. Goddard Award.

After practicing engineering in Europe and the Middle East for several years, **Rolfe Johnson** is opening an office in Jamaica, Vt. The firm will offer a complete service of engineering and surveying and will deal with a wide range of projects. Johnson has an MS from Armour Tech and holds professional licenses in Massachusetts, Pennsylvania, Wisconsin, Indiana, Illinois, Minnesota and Vermont.

Most recently, he was a resident engineer on construction projects in Scotland, the Netherlands, and Israel. In Vermont, he will be concerned with waste treatment, municipal engineering and solar energy, to name a few projects.

1941 REUNION JUNE 5,6,7

1942

James Houlihan was recently appointed vice president of preliminary design, research and development for the game division at the Milton Bradley Company, Springfield, Mass. In 1952 he began as a chief chemist at the company. Later he was manager of game development, director of research and development, and, most recently, vice president of the firm's research and development department. He has been responsible for many new product introductions contributing to a major part of the company's growth. During World War II, he was a weather forecaster in the U.S. Navy. He is active with the U.S. Power Squadron, where he teaches weather forecasting.

Arthur Wilson holds the post of senior staff mechanical engineer at Motorola, Inc., Scottsdale, Arizona.

1943

William Tunnicliffe holds the position of marketing manager at Bobst Graphic, Inc., Bohemia, N.Y.

Dr. **Richard Whitcomb**, who retired last year following a long, illustrious career as an aerodynamicist at NASA's Langley Research Center, was quoted in "They're Redesigning the Airplane," which appeared in the January issue of the *National Geographic*. His discoveries include the "coke bottle" fuselage for practical supersonic flight; the supercritical wing for low drag at high subsonic speeds; and winglets, which save about 5 percent of fuel costs by reducing drag.

Among his many professional awards are the Collier Trophy awarded to him in 1955 for the Area Rule, a concept revolutionizing supersonic flight; the National Medal of Science presented to him by President Nixon in 1973; and the Wright Brothers Memorial Trophy, given to him for significant public service to aviation. (His basic model demonstrating the coke bottle fuselage, Area Rule, is on display at the Smithsonian Institution.)

Whitcomb's many accomplishments have not gone unnoticed by his Alma Mater. In 1956, he received an honorary doctor of engineering degree from WPI. In 1975, he was presented with the Goddard Award for professional achievement.

In retirement, Whitcomb is not twiddling his thumbs. He is teaching himself solid state physics, and he has converted the extra bedroom in his apartment into a workshop-lab. His project? It's a secret, but it keeps him working late into the night. He hints, however, that it is energy related. Dick Whitcomb has a long, unbroken string of technical triumphs. Few doubt that his latest project will also be a winner.

1944

Recently, **Irving James Donahue, Jr.** was re-elected president of The Memorial Hospital Board of Trustees in Worcester.

Arthur Pingalore served as an instructor for the Tri-Community Chamber of Commerce "Changing Management Roles" program held in Southbridge, Mass. in January. He has been director of training at Cincinnati Milacron-Heald Corp.; a trustee of the Worcester vocational high schools; a trustee of Fairlawn Hospital; a board member of the YMCA; and an adjunct instructor at Anna Maria College.

1945

Robert Buck has retired from the FAA after 30 years of service. He lives in Pittsfield, Mass.

1946

Walter Bank, A WPI trustee, has been named director of marketing for DCS Corporation, an Arlington, Va. engineering firm specializing in electro-optics, airborne sensor/weapon systems, and energy conservation R&D. Previously, he was marketing manager for Systems Consultants, Inc. He is a director of the National Energy Resources Organization.

Irwin Benkert is with the Furnace Mechanical Division of M. W. Kellogg, Houston.

Robert Farwell is now vice president of market development for GTE Comm. Products in Stamford, Conn.

Thomas McCaw has assumed the position of president and chief operating officer at Fairfield Manufacturing Co., Lafayette, Ind. He has been with Fairfield for 33 years and has served as vice president for marketing and sales since 1972. The holder of 32 patents on gearing, worldwide, McCaw studied advanced engineering at MIT. He is on the boards of Presbyterian Housing, Inc., Lafayette Home Hospital, the Lafayette Symphony, the BSA, and the Tippecanoe County Historical Association.

Douglas Miller is program manager for the U.S. Department of Energy, Brookhaven area office, Upton, N.Y.

George Morin, who owns Bergeron Machine Co. of Keene, N.H., also serves as president of Green Mountain Metals in Windsor, Vt.

William Wells is now retired from Chrysler Corporation after 32 years of service and is an instructor of engineering technology at Western Kentucky University in Bowling Green.

1947

Carrol Burtner is director of the Office of Mechanical Engineering Safety Standards, USMA, for the U.S. Department of Labor in Washington, D.C.

1948

Howard Dember serves as manager of Allied Electric Supply, Waterbury, Conn.

Lawrence Minnick is an associate at Pickard, Lowe, & Garrick in Irvine, Calif.

Clark Poland has established a new business entitled Scan Web of North America, Inc. Temporarily his office is located in his home in New Canaan, Conn. Clark is national chairman of the Corporate Contacts Program of the WPI Alumni Association.

Leonard Rood holds the position of technical director at Dysart Chemical Co., Columbus, Ohio. He is also a real estate broker and president of Rood Enterprises.

1949

Norton Co. has appointed **Robert Rowse** as divisional vice president and general manager for proppants in the materials division. He will continue as divisional vice president for research and new business development. With Norton since 1949, he has held various positions in abrasives research, manufacturing, and marketing. He attended the Advanced Management Program at Harvard Business School and the School of Industrial Management at WPI.

1950

John Hawley is manager of nuclear engineering at Walworth Company in Linden, N.J. He is a professional engineer in New Jersey.

Lawson Hill has sold his mail order shoe business (Lawson Hill Leather and Shoe Co.) and moved to Jackson, N.H. Presently, he is a consultant. Also, he has launched a mail order business for the British Isles Collection.

Francis Norton serves as construction superintendent at Monsanto in Nitro, West Virginia. He and Eleanor have one child and reside in St. Albans.

Presently, **Richard Pieper** serves as financial manager for Ft. Apache Timber Co., Whiteriver, Arizona. He has an MBA from Pepperdine University in Los Angeles.

Les Reynolds continues as manager of planning and business development at American Cyanamid Company, Organic Chemicals Division, Wayne, N.J.

1951

Recently, **G. Albert Anderson** was elected a trustee of Henry Heywood Memorial Hospital, Gardner, Mass. He is vice president of Collier-Keyworth Company.

R. Ross Chapin's daughter, Carol, is a student at WPI. She hopes to major in mechanical engineering.

Capt. **Charles Darrell**, USN, holds the post of director of fleet logistic support with the Naval Sea Systems Command in Washington, D.C.

John Marley serves as a technical consultant and assistant to the general manager at Motorola Semiconductors Japan, Ltd., Tokyo. He is working on microcomputer systems for automotive engine controls in Japan.

Paul Radasch writes: "Running a small engineering company is quite a challenge." He and his partners have just taken on two younger men to work into the operation of Wind River Engineers, Riverton, Wy.

Dick Van Den Berge is employed as a senior analytical engineer at Hamilton Standard, Windsor Locks, Conn.

1952

Stanley Berman has been elected a member of The Memorial Hospital Board of Trustees, Worcester. He is a vice president of manufacturing at Norton Co. and trustee and treasurer of the executive committee of Worcester Academy.

Richard Gates continues as an insurance agent in Brattleboro, Vt.

Roland St. Louis writes that his sixth child, a son, is an applicant for admission at WPI and will graduate from high school this June. A daughter will receive her BA from Harvard and a son a law degree from the University of Chicago in June, also.

1953

Martin Cohen holds the post of director of operations services at TV International of Philadelphia. He has an MBA from Wharton.

Recently, **Dick Davis**, a WPI trustee, was named executive vice president at Truelove & MacLean, Inc., Waterbury, Conn.

Currently, **Emil Larson** is employed as a facilities engineer at Krupp Company of Boston.

1955

Gerald Backlund is plant manager for American Cyanamid, Kalamazoo, Michigan.

The Dataline Corp., a major supplier of data processing systems to the building supply industry, recently appointed **Hugh Bell** as chairman of the board. Bell, the founder and majority stockholder in the corporation, will continue as chief executive officer. He started the company in 1971 following his association with Scientific Data Systems, Bell Associates, and the Yondata Corp.

Robert Neunherz serves as facilities manager of Wright Line and lives in Westminster, Mass.

Ed Schoppe, Jr., keeps busy managing an informal natural foods co-op and working in product development at the Foxboro Co.

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Robert Kleid has been named manager of the mailing systems division product evaluation laboratory for Pitney Bowes Business Systems. In 1963 he joined the firm as an engineer. Since 1975, he has served as a senior engineer. He holds an MSME from WPI, and belongs to the ASME, and the American Society for Quality Control. He has been awarded four patents.

Irwin Smith III, president of Surpass Chemical Co. of Albany, N.Y., has been elected to a second term as regional vice president for the American Association of Textile Chemists and Colorists. A past chairman of the association's Hudson-Mohawk section, Smith has also served six terms as a national councilor. From 1956 to 1958, he was with the U.S. Army. He has been active in several Albany civic organizations. AATCC is the world's largest technical and scientific society devoted to textile chemistry, with more than 8,000 members in the U.S. and 50 other countries.

Charles Sullivan is currently engineering project manager for Air Force mature engines at Pratt & Whitney Aircraft, Government Products Division, in Connecticut. Formerly, he was located in Tequesta, Florida.

1957

Lawrence Alston holds the post of senior principal engineer at Polaroid Corp., Cambridge, Mass.

Dick Barlow is now chief executive officer at Bentley Harris Mfg. Co. in Lionville, Pa. He and Afra, who reside in Newtown Square, have three children. . . . . **Albert Langill** is president of C A D'Ora, Inc., Waterford, Ohio.

Still with Monsanto, **Bill Rogler** is presently product manager of the Plastic Bottle Division in St. Louis.

1958

Roger Anderson has a daughter in college and a daughter and son in high school. Home is in Weatogue, Conn.

Everett Angell serves as a project manager at Foster Wheeler Energy Corp., Livingston, N.J.

Anthony DiGiovanni has been named assistant vice president of distribution and engineering at Boston Gas. He is responsible for the installation and maintenance of the company's underground facilities and piping as well as the administration of the engineering department. Boston Gas serves nearly 500,000 customers in 74 cities and towns through 5,600 miles of gas distribution mains.

DiGiovanni joined the former Mystic Valley Gas Company as a staff engineer in 1958 and was named general superintendent of Mystic Valley distribution in 1972. He became superintendent of distribution-north for Boston-Gas when it merged with Mystic Valley in 1974, and manager of distribution in 1977.

He belongs to the New England Gas Association and the American Gas Association's distribution, construction and maintenance committee, and lives with his wife, Joanne, and four children in Reading, Mass.

Dr. **Sherman Poultney** serves as a senior staff scientist at Perkin-Elmer Corp., Norwalk, Conn.

Joaquim Ribeiro has been re-elected treasurer of The Memorial Hospital Board of Trustees, Worcester.

Douglas Todd is the new manager of STAG (a combined steam and gas turbine unit) business development and environmental planning at GE in Schenectady, N.Y. He will be responsible for worldwide market development of the company's combined cycle power generation equipment along with product planning and communications programs. He will be concerned with international oil and gas areas, as well as the introduction of combined cycles domestically, utilizing synthetic fuels supplied by integrated coal gasification systems. Other responsibilities include legislative and regulatory activities in the energy and environmental field. With GE since 1966, Todd started in the Large Steam Turbine-Generator Department. Prior to his new appointment, he was manager of STAG market development in the Gas Turbine Marketing Department. Currently, he is affiliated with GE's Gas Turbine Operational Planning and Advanced Concepts Operation. He and his wife, Marcia, have two children.

1959

David Daubney is a project engineer at Hollingsworth & Vose Co., East Walpole, Mass.

Morgan Ely serves as a purchasing agent at Bechtel Power Corp., Berwick, Pa. He received his MBA and MSCE from Utah State University.

Robert Hayden has been appointed engineering manager at the Henry G. Thompson Company in Branford, Conn. He holds an MSME from Yale, and joined Thompson in 1979 as project engineer. Previously, he was with Grumman Aircraft, Perkin-Elmer, Scan-Optics, and other high technology firms. He

belongs to the Society of Manufacturing Engineers, Tau Beta Pi, and Pi Tau Sigma. The Henry G. Thompson Company, a subsidiary of Vermont American Corporation, has manufactured Milford cutting tools for over 104 years.

Leo Price writes: "All goes well in the construction of the two air fields here in Israel. Will be back in the U.S. in 18 months". Price is chief of the Geotechnic Section for the U.S. Army Corps of Engineers.

Richard Soucy holds the post of program manager at IBM Corp. in Tampa, Fla.

1960

William Cannon is employed as fiscal officer at Pave, Inc., Waterbury Center, Vt. He has an MBA from Babson and lives in Stowe.

For three years, **Donaldson Dow** has been a (temporary) contract engineer in the stress analyst field. He enjoys the job variation and meeting new people in such areas as California and Rhode Island. Presently, he lives in Danbury, Conn., although he has a Tequesta, Fla. mailing address.

Arthur LoVetere, president and chief operating officer of MacDermid, Inc., has been elected as a director of Colonial Bank in Waterbury, Conn. He is also chairman of the Greater Waterbury Chamber of Commerce, president of the Metal Finishing Suppliers' Association, associate chairman of the Laymen's National Bible Committee, Inc., and a member of the Young President's Organization. He holds an MBA from Tuck School at Dartmouth College.

Ron Pokraka holds the position of eastern sales manager for Industrial Dynamics. He is located in Falmouth, Mass.

Thomas Sokolowski is with the Technical Evaluation Unit, USAF.

Peter Zilco wrote "Apply Demand Controls for Energy Conservation," which appeared in a recent issue of *Specifying Engineer*. He is general manager of Eagle Signal Industrial Systems, Davenport, Iowa, a developer and supplier of programmable industrial control systems with many applications in the field of power demand control. Also, he has served as system products sales manager and as industrial systems manager since joining the firm in 1977. Earlier, he was product marketing manager for programmable controls with Allen-Bradley, marketing engineer with Hewlett-Packard, and an aerospace engineer with various other firms. He has an MSEE from Northeastern University, Boston.

1961

Alfred Dunklee joined the Jet Propulsion Lab (JPL) as a permanent employee in the space physics section last October. He has been a contractor for JPL for five years, and has been involved with the Viking project, the Galileo project, and the SEASAT project. The Viking project put spacecraft on and around Mars, and Dunklee was involved in Viking mission operations software. Galileo is a future craft designed to circle Jupiter. With SEASAT, an oceanographic satellite, Dunklee is concerned with software for analysis of high energy astrophysical observatory data.

Arthur Kroll is with Gilbarco, Inc., Greensboro, N.C. . . . . **Richard Levendusky** serves as systems engineer at Naval Weapons Handling Center, Colts Neck, N.J.

Thomas Maloney is resident manager and assistant vice president at E.F. Hutton & Co., Burlington, Mass.

Paul Nordborg serves as a data processing consultant for Manufacturing Business Systems, Worcester.

Svend Pelch, continuing with Bristol Myers, is presently with the Unitech Division in Pasadena, Calif.

Louis Rossi has been appointed as research associate in the Photomaterials Division at the Kodak Research Laboratories in Rochester, N.Y.

Robert Ruberti has been promoted to head the Command Intelligence Section at the Rome Air Development Center, Griffiss AFB, New York. RADC is an Air Force laboratory that specializes in command, control, communications and intelligence research and development. Ruberti, who has been with RADC since 1961, holds a master's degree in statistics from Syracuse University. He, his wife Sharon, and three children live in Rome.

1962

Recently, **Joseph Baldasaro** was appointed director of manufacturing at Federal Chain Company of Providence. In his new post, he is responsible for manufacturing, production and inventory control, and purchasing. Prior to joining the company, he was with Speidel-Textron, where he was materials control manager and general manager of industrial engineering and maintenance. Previously, he was also with Fairbanks Morse Division of Colt Industries, St. Johnsbury, Vt., the Mobil Oil Co., and Consolidated Edison Co. of New York City. He graduated from the Bernard M. Baruch School of Business, the City College of New York City. The Baldasaros have two daughters, Amanda and Adrien.

Jesse Erlich has been elected by the members of the Boston Patent Law Association to serve as secretary and member of the Board of Governors of the Association. The Boston Patent Law Association has more than 250 members and serves the First Federal Judicial Circuit, including Maine, New Hampshire, Massachusetts, and Rhode Island. Erlich was on the Board of Governors in 1979, and also acted as chairman of the Patent Law Committee in 1980. In addition to being the new secretary, he will act as advisor to the BPLA Patent Office Affairs Committee. He holds a Juris Doctor degree from Georgetown and is a member of the bars in both the District of Columbia and Massachusetts. The Erlichs live in Bedford, Mass. with their two children, Adam and Shari.

Ralph Johanson has been named regional vice president of GRW Engineers, Inc., a full-service engineering firm headquartered in Lexington, Ky. He will direct activities in the Louisville office. Following graduation from WPI, he began his engineering career as a lieutenant in the Army Signal Corps and then worked in private consulting firms in California, Illinois and Kentucky. In 1971, he started work at GRW, and in 1975 became principal engineer and manager of Louisville-based engineering projects.

Johanson is the author of the paper "Design of Sanitary Sewers" given at the WPCF National Convention in Houston in 1979, and the paper, "Sewer Maintenance and Rehabilitation" given at the WPCF convention in Knoxville, Tenn. in 1980. He serves as mayor of Brownsboro Farm, Ky.

Established in 1964, GRW Engineers has performed engineering design for over 600 building and utilities projects with an estimated replacement value in excess of $3 billion.

Dr. **Mike Moses** is associate professor of corporate strategy in the Department of Management, Graduate School of Business at New York University.

Dr. **Joseph Swartzbaugh** has been promoted to general manager of engineering at Systems Technology Corporation (SYSTECH), Xenia, Ohio. He joined the firm six years ago, and previously served as principal scientist. SYSTECH specializes in environmental and energy technology. It is a subsidiary of Systems Research Laboratories of Beavercreek, Ohio.

1963

Charles Beck II is an analytical chemist with Luvak, Inc. in Boylston, Mass.

Dr. **Richard Iacobucci**, president of Roctronics Entertainment Lighting, recently spent a week visiting **Larry Escott** in Manhattan. (Larry is a stockbroker and investment analyst.) Charles T. Loveridge, son of **Charles L. Loveridge**, '48, is now a member of the Roctronics staff. Iacobucci says that one of the latest Roctronics products is the Lasergraph™ which "can write 'WPI' on Bancroft Tower from Boynton tower." The new eight-building Roctronics site is located in a 55-acre nature preserve in Pembroke, Mass. It contains both Iacobucci's office and his residence.

Michael Kulig currently works as plant engineer at Monsanto in Addyston, Ohio.

Fred Riley was recently elected president of the International Association of Quality Circles. He is product assurance manager for Hewlett-Packard in Palo Alto, Calif.

1964

►*Married:* **Ernest E. Chenoweth** and Virginia C. Jones of Stowe, Vermont on September 28, 1980. **John Jacobson**, '65 and **Mario Tama** were members of the wedding party. The bride, a graduate of Johnson State College, is a free-lance artist in Stowe. The groom holds a BSME and MSME from WPI. Currently, the Chenoweths live in Stowe, where Cap is self-employed with Sunworks Construction and Engineering. The company designs and installs domestic solar systems, builds traditional and contemporary Vermont homes, and does solar consulting.

►*Born:* to Mr. and Mrs. **Larry G. Hull** a daughter, Lynn Christine, on May 5, 1980.

Thaddeus Betts is employed as a civil engineer by the U.S. Military Academy, West Point, N.Y.

Thomas Boyle is a registered representative for Legg Mason Wood Walker in Gaithersburg, Md.

John Ganley is a senior engineer at AT&T Long Lines in Bedminster, N.J.

David Helming is presently assistant division manager at Public Service Electric & Gas Co., Burlington, N.J. Formerly, he was assistant manager for the firm in Newark.

George Klander holds the post of president of The Wordsmyth, Ltd., West Salem, Ohio. He is also an instructor of communications at North Central Technical College. The Klanders have four children.

Charles Lombardo is currently with Evergreen Publishing Co., Trenton, N.J.

J. Richard Lundgren, who has a PhD from Ohio State, continues as an associate professor at Allegheny College, Meadville, Pa.

R. Todd Varnum works as a development engineer at IBM in Essex Junction, Vt.

1965

►*Married:* **Bill Guidi** and Mindy Hackner on November 22, 1980 In Richmond, Massachusetts. Mrs. Guidi graduated from the University of Massachusetts with a BA in English. She is an in-school suspension supervisor for Lenox Memorial High School. Her husband serves as a consulting engineer for General Electric.

Leo Berendes received the certified financial planner designation last summer. He is with Janney Montgomery Scott in Providence, R.I., and lives with his wife and three children in Rumford.

Robert Cahill has been appointed president of Allister Manufacturing Company, Inc., Exton, Pa. Previously he served as president of National Hydron and had been associated with Hilti and SGL Homalite. He has an MBA from the Wharton School, University of Pennsylvania. A Vietnam veteran and company commander with the U.S. Navy Seabees, he received the Purple Heart and the Navy Commendation Medal. Allister manufactures electric operators for commercial and residential garage doors.

Mike Dembski is now a principal of his own company, The Premium Group, of Danbury, Conn. His company arranges for the premiums that are often offered by fast food restaurants and cereal companies, for example.

Jay Hammett continues at EMC Controls in Cockeysville, Md., and now holds the title of director of corporate planning.

Dr. **Robert Hermes** is a systems analyst for Magnavox in Mahwah, N.J.

Kenny Hultgren, still with GE, presently is on a three-year assignment to the GE sales office in London, England, where he will be selling mechanical drive steam turbines.

Chester Sergey, Jr. has been named regional sales manager of the Northeast region of Enthone Inc., West Haven, Conn., a subsdiary of ASARCO, Inc. The region comprises all of New England and New York state. Sergey has done graduate work at Lehigh University. He is a member of the American Electroplaters Society and is past president of the Waterbury branch of the society. The Sergeys have two children.

1966

B.H.(Woody)Adams serves as vice president of Kleinschmidt & Dutting, Inc. in Pittsfield, Me.

Roger Armata has been named manufacturing engineering manager of the Torrington Co. Standard Plant in Torrington, Conn. He will be responsible for industrial engineering, project engineering and manufacturing maintenance. With Torrington since 1966, he has been with the engineering department and has held various positions within the company. He holds an MBA from the University of Hartford.

William Bentley works as a Merchant Marine officer for Gulf Oil's Trading and Transport Marine Department, U.S. Fleet Personnel, of Philadelphia, Pa.

Thomas Brasiskis is the president and owner of Enco 2000, Inc., Atlanta, Ga. He and Kathleen have one child and live in Marietta.

Currently **Paul Castle** holds the position of general manager at W. C. Meredith Co., Inc., East Point, Ga. He has an MBA from Dartmouth.

James Cocci serves as a staff consultant at Sanders Associates, Inc. in Nashua, N.H. The Coccis have two children.

Peter Kudless has been promoted to the position of project construction manager for the Hope Creek Generating Station by Public Service Electric & Gas Company of New Jersey. The plant will have two boiling water reactor units, each with a generating capacity of 1100 megawatts. Completion of Unit 1 is currently scheduled for 1986, and Unit 2 for 1989.

Pete was also recently selected to serve as executive officer of Reserve Navy Mobile Construction Battalion (RNMCB) 21, which is headquartered in Lakehurst, N.J. He is currently a lieutenant commander in the Naval Reserve (Civil Engineer Corps). Presently, **Ken Olsen**, '62 is commanding officer of the battalion, RNMCB-21. Pete, his wife, Karen, and their five children reside in Turnersville, N.J.

Dr. **John Lauterbach** serves as analytical research division head at Brown & Williamson Tobacco Corp. in Louisville, Ky. Recently, he was named chairman-elect of the Louisville section of the American Chemical Society.

Orlando Mendez is president of O.R.M. Construction Corp., in Puerto Rico.

Presently, **Michael Napolitano** is employed as an electronic development engineer at Boston Digital Corp., Hopkinton, Mass.

1967

►*Born:* to Mr. and Mrs. **Joseph Goulart**, a son, Jared Joseph, on December 9, 1980.

Fernando Castillo has been promoted to supervisor of standards development in the boiler design department at Riley Stoker in Worcester. With the firm since 1970, he previously was senior engineer in the proposal engineering department.

Dr. **William Cobb** is an assistant professor of medicine at Tufts University School of Medicine, Boston, and director of medical education at Quincy (Mass.) City Hospital.

Bryon Dennison is a visiting professor at Southeastern Massachusetts University, North Dartmouth. He holds a BSEE from West Virginia University and an MSEE from Virginia Polytechnic Institute. The Dennisons live in Westford, Mass.

Rein Freeberg is a member of the technical staff at Mitre Corp. in Bedford, Mass. He and his wife, Laurel, reside in Lexington.

Edward Gallo writes: "I arrived here outside of Athens, Greece with my family in July of 1980. Presently, I am the commander of the 138th Ordnance Company."

Currently, **Athanasios Kanatsoulis** holds the position of managing director of IMCO S.A. Hellenic Trading Company in Athens, Greece. He has an MSEE from the Moore School of Electrical Engineering and an MBA from the Wharton School of Finance and Commerce at the University of Pennsylvania. His home address is: 1, Menandrou St., Kifisia, Athens, Greece. Tel.: 01-8084270. He and his wife live in Athens and are the parents of a daughter.

Russell Lukes works as manager of computer operations for Strategic Planning Assoc., "the nation's fastest growing consulting firm providing long-range strategic business planning services to Fortune 500 firms."

Robert McAndrew serves as supervisory engineer at Babcock & Wilcox, Lynchburg, Va.

Dr. **Paul Milne**, who holds a PHD from Kansas State University, is with the Suslo unit of the Department of Defense.

Jack Rahaim presented a one-day course on techniques and materials to aid the energy-user at Massasoit Community College, Brockton, Mass. in November. The course was designed for individuals who have direct responsibility for energy use and its costs: plant managers and engineers, chief executives, plant owners and design engineers. Topics included utility rates, heating, lighting, and energy audits and budgets. Rahaim, who has over 12 years of energy management experience, conducted the course in conjunction with Eastern Edison, Massachusetts Electric Company, Mt. Wachusett Community College and the Small Business Administration.

1968

►*Born:* to Ruthanne and **Ken Gminski** a daughter, Sarah Beth, on October 22, 1980.

Bill Belisle received his MBA from California State University at Long Beach last August. He had previously received his MSME from the same school. Presently, Bill is the training manager at AiResearch Manufacturing Company in Torrance, Calif. The firm has over 7000 employees and is one of the Signal companies.

Norman Brunell has just moved to Houston, Texas to be counsel for Litton Energy Systems, which is undertaking a new multi-billion dollar project to convert natural gas to methanol fuel on floating plants. He holds a JD from Suffolk University.

Dave Gumbley serves as operations and engineering coordinator at Getty Refining & Marketing Co., Bakersfield, Calif.

Dr. **Charles Konopka** is now a systems support specialist at Combustion Engineering in Windsor, Conn. Formerly, he was assistant principal at East Longmeadow (Mass.) High School.

C. David Larson serves as marketing manager at Devcon Corp., Danvers, Mass. He has an MBA from Rutgers.

Douglas Riley, chairman of the Nashua Regional Planning Commission, addressed a breakfast forum of the Southern New Hampshire Association of Commerce & Industry in February. He discussed the area's sharp growth in the past decade, and reviewed the commission's initiatives in transit, highways, and water policy. Formerly, he was employed by the U.S. Army Corps of Engineers, and Camp Dresser and McKee, environmental engineers. Currently, he is a civil engineer for Harvey Construction Company, Manchester, N.H. He began guiding commission policy in 1978 as a member of the Regional Sounding Board. Since last July, he has served as chairman of the commission.

Leo Sprecher holds the post of president at Budd Foods, Inc., Manchester, N.H.

John Trudeau works as western operations manager for Corporate Computer Systems, El Granada, Calif.

Navy Lt. **David Williamson** has returned from a deployment in the Indian Ocean. He is an officer assigned to the guided missile cruiser USS South Carolina, home-ported in Norfolk, Va. While deployed, his ship operated with the aircraft carrier USS Dwight D. Eisenhower and the guided missile cruiser USS Virginia as part of the Eisenhower carrier group. The ships formed the first Atlantic Fleet carrier group to engage in a scheduled, full-scale deployment to the Indian Ocean. Port visits were made in Singapore and Kenya as the carrier group traveled more than 68,000 miles and conducted air operations for 183 out of 240 days.

Edward Zakrzewski continues as a senior recruiter for Arco Chemicals in Newtown Square, Pa.

1969

Joel Cehn holds the post of radiation protection advisor at Pacific Gas & Electric Co. in San Francisco.

John Connell is a project manager for Aetna Insurance Company in Hartford, Conn.

Alan Cunningham serves as branch manager at Republic Packaging in Beverly, N.J. He is married, has two children, and holds an MBA from Babson College.

Previously headquartered in Holland with General Electric Plastics B.V., **Jerome Flynn** is presently located in Lausanne.

Bruce Green is a sales manager for the Bath Iron Works Corp. Division of Cleveland Punch & Shear Works. He is located in Bath, Maine.

In January, the law office of Warren C. Lane, Jr. in Worcester was renamed to Lane & Greene, P.C., a professional corporation. **Joel Greene** is associated with the firm.

Charles Kalauskas has a new position as a senior transportation planner with BSC Engineering in Boston.

Stephen Legomsky holds the position of staff attorney at the U.S. Court of Appeals, 9th Circuit, San Francisco, Calif. He and his wife, Lorraine, have one child.

David Lieberman holds the post of manager of systems and procedures at Memorex Corporation in Santa Clara, Calif.

Paul Shea, who received his PHD from the University of Rhode Island last year, is a research engineer at du Pont in Wilmington, Delaware.

Harold Wyzansky has received his MS in systems engineering from the University of Pennsylvania. Currently, he is employed as a computer operating system analyst for the Naval Air Development Center, Warminster, Pa.

1970

►*Born:* to Carol and **Bradford Bjorklund** a daughter, Nicole Brianna, last July. The family resides in Woodham, Surrey, England.

To Mr. and Mrs. **Marc Schweig** their third child, Meredith, last December. In June, Schweig graduated from Harvard University with an SM in applied mathematics. In September, he was promoted to department chief of regulatory and international technical standards at Western Electric and moved to Morristown, N.J.

John Boyd is employed as a marketing engineer at Hewlett-Packard Co. in Waltham, Mass.

Daniel Breen, who transferred to the Dallas area last year, was recruited by **Frank McMahon**, '72, for his basketball team. They won their league championship without a loss.

Ralph Di Iorio currently lives in Annandale, Va., and works for American Management Systems, in Arlington. He is employed as the company's DECSYSTEM-2060 operations manager responsible for operations and planning of four DEC-20/60 mainframes. Presently, his group is in the final planning stages of relocating all DEC-20/60 mainframes to a new facility two blocks away, a move that must be made without having any of the 120 users out of service. His company offers both DEC and IBM services. After hours, he is working on his master's in computer science at George Washington University.

David Emery, a Maine representative to the U.S. House of Representatives, has been appointed as deputy minority whip for the Republican Party. Reportedly, Emery is the first Maine resident to serve in any House of Representative leadership post since 1899. He credits his appointment in part to a need for more representation in the House hierarchy from the northeast sector of the country. He says his assignment will be "to line up votes." He also expects to be a bridge between the conservatives and moderates in the party. In February, he was the guest speaker for the annual Eastern Maine Chapter of the Maine Society of Professional Engineers meeting in Bangor.

Duncan Gillies serves as president of Duncan M. Gillies Co., Inc., West Boylston, Mass. He is also chief of the West Boylston Fire Department.

Continuing as a project manager for Heery Associates, **Neil Hodes** is currently concerned with the sports arena in Anchorage, Alaska. He has an MBA from Boston University.

Steven Lacaire has moved from Westboro, Mass. and is now located in California.

Tim Mackie assumed a new professional position as general foreman in the Glass Ceramic Diamond Products Division at Norton Company, recently. He is an officer of the Worcester County Alumni Club.

Edward Mason holds the position of vice president of operations at Diesel ReCon Company. He lives in Cordova, Tennessee.

William Rolya received his MBA in finance from Fordham University last July.

James Ryan holds the post of department manager for firmware development at Honeywell in Framingham, Mass.

John Shea holds the position of senior service supervisor at Dowell in Freeport, Texas. The Sheas have three children and live in Friendswood.

Robert Soffel writes that he is looking forward to Homecoming and hopes to make it "back to the 'Tute this year." He continues with the Linde Molecular Sieve Department of Union Carbide. Since November he has been with the field technical service group, servicing their installed units in the U.S., Canada, and almost anywhere else there are natural gas liquids recovery plants, or ethylene plants. He divides his off hours between the Brookfield, Conn. Volunteer Fire Department and tennis.

Presently, **Paul Wilson** is employed as chief engineer at Arwood Corporation in Tilton, N.H. He lives in Ashland.

1971

►*Married:* **Raymond L. Skowyra, Jr.** and Marianne D. Short on November 1, 1980 in St. Paul, Minnesota. The bride graduated from Newton College of the Sacred Heart and Boston College Law School, and is an attorney with a Minneapolis law firm. The groom, who graduated from Harvard Graduate School of Business, is with GE in Minneapolis.

John Capitao is manager of engineering for computer services at GE in Fitchburg, Mass. He has an MSME from WPI.

Lee Cristy is president of Wire and Board, Inc., Beltsville, Md.

Allen Downs is a senior software engineer at Wang Labs in Lowell, Mass. He and his wife, Saucy, now live in Mont Vernon, N.H.

Dr. **Irving Engelson** was recently appointed staff director of Technical Activities for the Institute of Electrical and Electronics Engineers. He will direct the technical operations of IEEE, the world's largest engineering society, with 200,000 members worldwide. The Technical Activities Department is responsible for coordinating the efforts of 30 technical societies within the IEEE, which publish 46 periodicals and hold over 150 conferences annually.

Dr. Engelson has belonged to the Institute since 1955 and is a senior member. Last year, he was appointed acting staff director of Technical Activities.

Prior to joining the IEEE staff, he was with RCA for eight years. Also, he was professor and associate dean of the College of Engineering and Technology at the University of Nebraska, and associate professor and assistant dean at New Jersey Institute of Technology.

He holds a BS from Polytechnic Institute of Brooklyn, an MS from Rutgers, and a PhD from WPI, all in electrical engineering. A member of Eta Kappa Nu, he also belongs to Tau Beta Pi and Sigma Xi, and has been elected to the New York Academy of Sciences.

Steven Face serves as a research scientist at Kaman Sciences Corp. in Colorado Springs, Colorado.

Dr. **James Kaufman** was a featured speaker at the 60th annual Massachusetts Safety and Health Conference and Exhibit in Wellesley, Mass. He is an associate professor at Curry College in Milton, and safety chairman of the New England Section of the American Chemical Society's Committee on Chemical Safety.

William Nute, a development engineer for Western Electric, is currently assigned to Bell Laboratories in Holmdel, N.J.

Vincent Pace, no longer employed at GE in Philadelphia, now attends law school at Temple University.

Donald Peterson holds the post of assistant treasurer at Northern Telecom Ltd., Mississauqa, Ontario, Canada. He has an MBA from Amos Tuck School, Dartmouth. The Petersons have one child, Janine.

Richard Pietryka is a sales engineer at Westinghouse, Towson, Md. He and Paula have two children and live in Columbia.

Glenn White continues as a post doctoral research fellow in the Department of Meteorology at the University of Reading in the United Kingdom.

1972

►*Born:* to Karen and **Mark Dupuis** their third daughter last August. Mark, who is Worcester County Regional Club chairman, was recently promoted to plant manager in the Diamond Tool Division of Norton Company.

Jack Blaisdell is vice president and sales engineer at Tectrol Associates, West Springfield, Mass. He, his wife, and two children reside in Lee.

Joseph Gotta has been appointed western region sales engineer for Galileo Electro-Optics Corp., Sturbridge, Mass. Earlier, he was a marketing coordinator for Ludlow Corp. In his new post at Galileo, he is responsible for the administration of technical sales support to industrial and government accounts in the western half of the U.S.

George Hajisavva is a secondary school teacher for the Ministry of Education in Nicosia, Cyprus.

John O'Brien holds the post of plant manager at Spectra Physics in Eugene, Oregon.

1973

Bill Ault is now a sales supervisor for Norton Co., with a territory in central Illinois. **Holly (Keyes) Ault**, '74, works as a research engineer for Olin Corp. in East Alton, Ill.

Fermo Bianchi, Jr. now works as a construction coordinator for Stone & Webster in St. Francisville, La.

Dr. **Paul Ciaccio**, who holds a doctorate in optometry from the New England College of Optometry, is an optometrist in Orleans, Mass.

James Davis serves as a sales account manager at Nalco Chemical Co., Oak Brook, Ill.

Tom DiFrancesco, a civil engineer and CPA, has joined the Disney organization. He works in Florida on EPCOT (experimental prototype community of tomorrow) and in California at the Disney Studio in Burbank and at Disneyland. "I play golf, when I'm not working," he says.

Conrad Fong is currently employed as a project engineer at Sweetheart Plastics in Wilmington, Mass.

David Haflich is operations coordinator for Envirotech Operating Services in San Mateo, Calif. He has an MS in environmental engineering from Stanford University.

Mervyn Hamer holds the post of process engineer at Stuart Pharmaceuticals in Pasadena, Calif.

Bucky Kashiwa now works in the fluid dynamics group of the Theoretical Division at the Los Alamos Scientific Laboratory. He is concerned with the investigation of multiphase flow phenomena. His group is looking into the effects of steam-water jets which arise in hypothetical nuclear reactor accidents.

Jeffrey Korn has completed the initial training at Delta Air Lines' training school at the Hartsfield Atlanta International Airport and is now assigned to the airline's Miami pilot base as a second officer. Earlier, he had been with Altair Airlines.

William Mawdsley has been elected assistant vice president and associate actuary within the actuarial organization at State Mutual Life Assurance Company of America in Worcester. A fellow of the Society of Actuaries, he was named associate actuary in 1978.

Rick Nabb and his wife, Gina, are located in Connecticut. Rick continues as manager of compounding at Clairol.

Last September, **William Nutter** left GE Ordnance Systems and later joined Rockwell International Space Systems Group at Kennedy Space Center in Florida. He is a member of the engineering technical staff for space shuttle launch operations.

Warren Smith holds the post of senior engineer at Air Cruisers Company, Belmar, N.J. The company manufactures aircraft escape slides and life rafts.

John Zikopoulos, who has a PHD in biochemistry from Iowa State University, serves as a senior research scientist at Armour & Company in Scottsdale, Ariz. He and Athena have two children.

1974

►*Married:* **Bruce R. Beaupre** and Donna T. Ventresca in Worcester on November 15, 1980. Mrs. Beaupre, a graduate of Salter Secretarial School and Worcester State, is employed by Riley Stoker Corp. The groom is a process engineer in the special formats area in the film division of Polaroid Corp., Waltham. He is studying for his master's degree at WPI. . . . . **Alan C. Hallquist** and Laurie A. Desmarais on October 4, 1980 in Winchendon, Massachusetts. The bride graduated from Westfield State College and is purchasing agent for The Lakso Company, Leominster. The groom is an air quality scientist at Environmental Research and Technology, Lexington.

►*Born:* to Betsy and **John Chipman**, a daughter, Julie Ellen, on August 26, 1980. John received his master's in engineering management from Northeastern University last June. Presently, he is working with fiber optic transmission systems at GTE Sylvania, Needham, Mass. . . . . to Penny and **Alan Judd**, a daughter, Heather Catherine, on January 4, 1981.

Christopher Cigal, a captain in the U.S. Army, is located at Washington & Jefferson College in Washington, Pa. He and his wife, Anne, live in Canonsburg.

Todd Cormier is employed as a senior project engineer at Halliwell Associates, Inc., in East Providence, R.I, specializing in the design of hyroelectric power projects. The firm is involved in all aspects of alternative energy, including: conversion to coal, solar, and most recently, oil shale.

Steve Dacri says that he entertained on the Prinsendam in Alaska "before it sank!" In 1980 he appeared on TV in "Candid Camera," "Good Day," "Dinah & Friends," and did a taping for "That's Incredible" which aired this January. Among the celebrities he has recently worked with are Bob Hope, Tony Orlando, and Tim Conway.

Ranjan Das works as a project engineer at Dresser Industries in Olean, N.Y.

Dr. **Richard Dunlap** is a research associate at Dalhousie University, department of physics, in Halifax, Nova Scotia. He holds an MA from Dartmouth and a PHD from Clark.

Robert Ferrari works as a project engineer at WVP Consulting Engineers, Decatur, Illinois. He and his wife, Judy, live in Urbana.

Joseph Forand, who has an MS from Yale and an MBA from Northeastern, is now a chemist for Procter & Gamble in Cincinnati.

James Gow has been promoted to director of systems development within the systems development organization at State Mutual in Worcester. A fellow of the Life Management Institute, he was named senior project manager in 1979.

Lawrence Hayden is now a software engineer at Raytheon in Portsmouth, R.I. Formerly, he was an Army captain in the Pentagon. He, Gail, and two children reside in Middletown.

Capt. **Thomas Kielick**, U.S. Army, is an assistant professor of military science in the Siena College ROTC department at Loudonville, N.Y.

Harold Maxon serves as a risk engineer at Procter & Gamble in Cincinnati.

William Murwin was recently promoted to systems consultant within the data processing organization at State Mutual Life Assurance Co. of America, Worcester. He joined the company in 1974. In 1978 he was promoted to senior systems analyst.

Ronald Sarver continues as president of Ronnie's Catering, Inc. and Sarver Realty in Randolph, Mass.

Stephen Skutel has been promoted to senior computer research and technical support consultant within the data processing organization at State Mutual in Worcester. He joined the company as a systems analyst in 1974. He was promoted to computer research and education consultant in 1977 and advisory computer reseach and education consultant in 1978.

Dean Stratouly has been elected vice president of Massachusetts operations at Wright-Pierce, architects and engineers, in Topsham, Maine.

Craig Tyler is now manager of customer engineering at Tuttle & Bailey, New Britain, Conn.

Mary Lynch Voshell is temporarily suspending her career to remain at home with her daughter, Sharon, who was born on Feb. 9, 1980.

Frederick Williams is an electro optical engineer at CBS Technology Center, Stamford, Conn.

1975

►*Married:* **John M. Batt** and Barbara A. Mutz on June 14, 1980.►*Born:* to Joan and **Stephen Fitzhugh** their first child, Christopher Ian, on February 24, 1981.

Norton Bonaparte, Jr. holds the post of director of program development at American Society for Public Administration in Washington, D.C. He has a master of public administration degree from Cornell University.

Robert Cummings now serves as operations engineer for Public Service Company of New Mexico. He is located in Albuquerque.

Presently, **Alan Destribats** is manager of strategic planning in Lachine, Quebec, Canada for Canadian General Electric. He and Mary Jane have two children.

Michael Dudas holds the position of vice president at Electrodes, Inc., Milford, Conn.

Currently, **John FitzPatrick** serves as a group manager for Esso Engineering Europe, Ltd., and is located in England. He is estimating for construction projects in Italy, France, and Germany. His wife, **Virginia (Giordano)**, is doing part-time work as a systems consultant for Control Data Limited two days a week. Daughter, Cara, keeps her busy, too.

Ginny writes, "England is expensive, but fun." Paris, Austria, and Scotland are next on the FitzPatrick agenda.

Robert Granger writes that he has opened his own law office in Boston. He received his Juris Doctor degree with honors from Suffolk University and was admitted to the Massachusetts Bar. For the last six years, he has been associated with Chas. T. Main, Inc., a major engineering firm in Boston, At Main, he has served as principal consultant to electric suppliers and consumers in the areas of rates, regulation, and finance.

Clarke Greene has been appointed systems engineer by Times Fiber Communications, Inc., a subsidiary of Insilco Corporation in Wallingford, Conn. He will assist in the design of systems for the cable TV, military, and telecommunications markets. Previously, he was a project engineer at the Radio Amateur Satellite Corporation, where his responsibilities included design, testing and fabrication of spacecraft antenna and computer systems. From 1976 to 1978 he was a technical editor for the American Radio Relay League. Also, he has been a science instructor at the Talcott Mountain Science Center in Avon.

Bill Gregory has a new job as senior manufacturing engineer at ITT Surprenant in Clinton, Mass.

Lloyd Hemenway works as a product manager for dry flue gas desulfurization systems at Buell, Emission Control Division, in Lebanon, Pa.

Paul Houlihan works as a field sales engineer at Texas Instruments, Inc., Waltham, Mass.

Robert Howard is with Alcoa Technical Center, Alcoa Center, Pa. He and Betty have two children and live in Export, Pa.

Michael Kallet serves as vice president of systems and programming at Computer Support Corp., Dallas, Texas.

Dr. **Mohsen Kavehrad** is a member of the technical staff at GTE Laboratories, Inc., Waltham, Mass. He and his wife, Susan, have one child and reside in Hudson, N.H.

Presently, **Robert Martinaitis** works as an associate staff engineer in the Surveillance Systems Group for the Applied Physics Laboratory of the Johns Hopkins University, Laurel, Md.

Robert Poxon has been named front end manager at the new Wonder Food Warehouse in Woonsocket Plaza in Rhode Island. He joined Wonder in 1972 in Milford as a part-timer. In 1975 he became front end manager of that store. He assisted in the opening of Wonder's Big D Market in Uxbridge in 1978. The Wonder Market Company does $110 million in sales annually and is reportedly the largest sales volume independent supermarket operation in New England.

James Roche is a senior project engineer at General Motors Corp., Warren, Mich.

Paul Rojko continues as an engineer with the USAF.

Patricia Pfeiffer Salamone continues as a graduate student and research assistant in the Boston College physics department. She and her husband, Salvatore, reside in Brookline, Mass.

Paul Stein is a graduate student in the Department of Physiology at Albany (N.Y.) Medical College. He has an MS from the University of North Dakota.

Frank Vanzler works as an assistant project engineer for the Turner Construction Co. in Cleveland.

Jeffrey Wnek completed his third Boston Marathon in 2:43. He lives in Athol, Mass.

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► *Married:* **Gary M. Anderson** to Margaret E. Toms in Wellesley, Massachusetts on October 4, 1980. The bride graduated from Wheaton College and works for the University of Massachusetts Medical Center. The groom is with Heald Machine Company, Worcester. . . . . **Jonathan G. Bradley** and Lynne H. Jordan of London, England on December 20, 1980 in Houston, Texas. The bridegroom is employed by Texas Instruments, Houston.

Thomas Bailey is employed as a sales engineer for the ITT Surprenant Division in Des Plaines, Ill.

Stephen Borys serves as a senior engineer in Los Angeles for Exxon Co., USA.

Richard Brandoli is a senior manufacturing supervisor at Texas Instruments, Attleboro, Mass. While he was racquetball champ at the Attleboro YMCA, **Jack Fitzgibbons**, '75, was squash champion.

Jeffrey Buntz is assistant engineer for the Northeast Connecticut Regional Planning Agency in Brooklyn, Conn.

John Carbone is with the Naval Ocean Systems Center in San Diego, Calif.

Previously with Union Carbide in Tonawanda, N.Y., **Jeffrey Coderre** is now project engineering supervisor at Ensign Bickford Co., Simsbury, Conn. He is working for his MBA.

Stephen Cummings, who received his MBA from Boston University, now is employed as a production engineer at Polaroid in Waltham, Mass.

Lynne Buckley Decker continues with United Engineers & Constructors, Boston. She and her husband, Francis, reside in Weymouth, Mass.

Timothy Golden is a technical service representative for Monsanto in Springfield, Mass. He holds an MBA from A.I.C.

George Hefferon, who received his PhD from Columbia University last year, is now a research associate at Ohio State University in Columbus.

Currently, John Heid works in corporate engineering at Max Factor in Hollywood, where he is a project manager. He resides in Camarillo, Calif.

Last year, **Steven Kuznicki** received his PhD in chemistry from the University of Utah. Now, he is senior research chemist for Air Products & Chemicals in Allentown, Pa. The Kuznickis have three children.

Richard Leone is with Factory Mutual Research Corp., Norwood, Mass. He and Karen live in Milford.

Anne Madara, still with Polaroid, now works for the Corporate Systems Division in Waltham, Mass. She is currently the coordinator for the Polaroid Programmer Training Program. The first ten trainees will graduate in June after eight months of combined classroom and on-the-job training.

Craig Plourde has been promoted to assistant vice president in technical support in management information systems at the Connecticut Bank and Trust Company. He joined the company in 1976 as a senior programmer and has been senior systems engineer since 1978.

Rick Rudis is an engineering assurance engineer for Stone & Webster, Boston, Mass.

Steven Schoen has been named a fellow of the Society of Actuaries, as a result of a test which he passed last November. Also, in February, he was promoted to assistant actuary at Sun Life of Canada, the insurance company where he is employed.

Kelly and **Bruce Stoller**, who were married last June, are living in Nashua, N.H.

Esmail Tinati is self-employed in Las Vegas.

Cpt. **Neal Wright**, who has been with the U.S. Army Corps of Engineers in Ft. Belvoir, Md., is looking forward to an overseas assignment in April.

1977

► *Married:* **Allan R. Clarke** and Ann C. Depies in Appleton, Wisconsin on November 1, 1980. Mrs. Clarke graduated from Marquette University. She is a dental hygienist. Her husband is a chemical engineer for Amricon. . . . . **Robert Medeiros** and Diane F. Markmann in Fallston, Maryland on December 20, 1980. The bride, who has been employed as a branch bank manager, attended Towson State University. The couple presently resides in Herts, England. . . . . **J. Clayton Ney, Jr.**, to Tania M. Olcar on February 21, 1981 in Waterbury, Connecticut. The bride graduated from Cedar Crest College, Allentown, Pa. with a degree in sociology and education. She is the affirmative action officer for the City of Waterbury. Her husband serves as an administrator for Expanded Rubber Products, Watertown.

Allyn Amabile serves as a design engineer at Celanese Chemical in Houston, Texas.

Timothy Ascani is an executive offieer with the U.S. Army at Ft. Lewis, Washington.

Paul Cadorette, who is pursuing his MBA, works as district representative for Bess Eaton Donuts in Westerly, R.I.

Andrew (Moon) **Clancy** now serves as a planning engineer at Western Electric Co. in Burlington, Mass., having transferred to the Marketing Research Group. He still rows for the Riverside Boat Club in Cambridge.

William Cloutier works as project engineer for Nuclear Energy Services in Danbury, Conn. He and Maureen live in Bethel.

Ismael Colon serves as a project scientist at Union Carbide in Elm Brook, N.J.

W. Paul Cullen continues with GE in Schenectady, N.Y.

Steven Fine is a laboratory scientist at Western Company in Fort Worth, Texas. He works with the analytical group of the Western Research Division. In December, he received his MS in chemistry from Texas A&M.

Nancy Gettens is with Polaroid in Waltham, Mass. She and her husband, **Anthony Giglio** live in Medfield.

Mike Gregory has been in pilot training with the U.S. Air Force.

James Howe is employed as a hydro plant engineer at Niagara Mohawk Power Corp.

David Laferriere serves as a corporate staff engineer at Goodyear Tire & Rubber, Barberton, Ohio.

William Lee, a first lieutenant in the U.S. Army, is stationed at Ft. McNair, in Washington, D.C.

Kathy Molony was recently promoted to department head of production in oxidation at Clairol, Stamford, Conn.

Lte. **Ronald Norris** is with the U.S. Army in Washington, D.C.

Michael O'Leary works as a sales engineer at Blake Equipment in Bloomfield, Conn.

Amy Schneider is employed as a programmer by GTE Sylvania of Danvers, Mass.

Nicolette Stultz holds the position of systems design engineer at Solar Energy Sales in Walnut Creek, Calif.

Chris Thomas is district engineer at the Torrington Co., Novi, Michigan.

Richard Wheeler holds the post of product sales representative at Hooker Chemical Co., Pottstown, Pa. He and Linda are the parents of Jason, 1.

1978

►*Married:* **Kathryn E. Lyga** and Edgar F. Heselbarth III on October 4, 1980 in Salem, New Hampshire. The bride is a design engineer at C. E. Power Systems, Newington. Her husband, a graduate of Wentworth Institute of Technology, is an electronics technician at Digital Equipment Corp. . . . . **John Sabat, Jr** and Maryanne Bohdiewicz on August 3, 1980 in Worcester. Mrs. Sabat graduated from Anna Maria, is in the master's program at Worcester State College, and is a learning-disabilities specialist at the Ellis Elementary School, Fremont, N.H. The bridegroom, an electrical engineer at Sanders, Inc., Nashua, N.H., is taking the master's program at Northeastern in Boston.

Alvaro Arcila serves as a planning advisor at Fabricato, S.A., in Colombia.

Howard Bleakie holds the post of engineering manager at Protanic in Cohasset, Mass.

Robert Brosnahan recently published a paper in the Journal of Biomedical Materials Research. It was entitled: "Suitability of Pigmented PVDF Wire For Implantation in the Dog."

David Chin is now with Factory Mutual Engineering Association in Dallas, Texas.

Lou Collette works as a senior engineer in government systems at Harris Corp., Palm Bay, Florida. He is studying for his master's degree at Florida Institute of Technology. The Collettes have a fourteen-month-old daughter and live in Melbourne.

Greg Dunnells continues as a process engineer at Gulf Oil Chemicals Co., Baytown, Texas. He is involved with technical service in the olefins units.

Eric Fredrickson presently works for C & K Components in Newton, Mass.

Robert Fritsch, who has his MSEE from WPI, now works as an associate engineer at EVA Service Corp., Lincoln, R. I.

Howard Hillstrom is presently studying for his PHD in biomedical engineering at Drexel University in Philadelphia. His research is concerned with myoelectric, microprocessor controlled prosthetic devices.

Wayne Martin serves as a nuclear plant engineer for GE in Windsor, Conn.

Marine 1st Lt. **Mark McCalmont** has received his wings of gold in recognition of 18 months of flight training. The naval aviator's curriculum included basic studies in engineering and navigation, training flights in simulators, and aircraft carrier landings. He joined the Marines in 1978. Presently, he is with the All Weather Attack Training Squadron-202 at the Marine Corps Air Station in Cherry Point, N.C.

Steven McLafferty is a design engineer at CSP, Inc., Billerica, Mass. He works with array processors.

Recently, **Pete Mulvihill** accepted a promotion to district supervising engineer in the San Francisco field office of Industrial Risk Insurers.

Robert Pancotti is a computer scientist at Lawrence Livermore National Laboratory in Livermore, Calif.

Robert Rossier works as an associate engineer at Electric Boat in Groton, Conn.

Newell Stamm, Jr. is with Stamm Construction, Newingto, Conn.

Paula Jane Stoll, who has a master's degree from WPI, is presently a graduate student and research assistant in the chemical engineering department at the University of Illinois in Urbana.

Jan Tauc is with Northern Research & Engineering Corp., Woburn, Mass.

Stephen Tourgny is a quality process control engineer at Norton Co., Huntsville, Alabama.

1979

►*Married:* **David W. Ford** to Patricia Caswell in Fall River, Massachusetts on November 29, 1980. Mrs. Ford is attending Southeastern Massachusetts University. . . . . **Scott Hansen** and Leslie Schellhase on October 11, 1980 in Bedford, Massachusetts. **Jay Frankudakis was in the wedding party.** . . . . **Mark B. Hecker** to **Ann-Marie Robinson** on April 19, 1980. The bride serves as an associate software engineer at Prime Computer in Framingham, Mass. . . . . **Mark T. McCabe** to Kim S. Lusnia in Chicopee, Massachusetts on December 27, 1980. Mrs. McCabe graduated from Bowdoin College and was a marketing consultant at New England Telephone Co., Worcester. Her husband works for Wendell Kent Co. of Bradenton, Florida. . . . . **Jason F. Providakes** to Janet K. Grossman on January 10, 1981 in Springfield, Massachusetts. Mrs. Providakes graduated from Springfield Technical Community College and was a flower designer and manager at Small's Flower Shop. The groom is a doctoral candidate in electrical engineering at Cornell University, Ithaca, N. Y. . . . . **John M. Vogt** and **Heidi Pivnick** on February 14, 1981 in Providence, Rhode Island. The bride works for AT&T Long Lines, Boston. Her husband is with Warren Communications, Littleton, Mass.

Carl Anderson holds the post of assistant chief engineer of ball valves at Jamesbury Corp., Worcester. He has an MS in management from WPI.

Paul Bellagamba is a civil engineer for the City of Bristol, Conn. . . . . Currently, **Allen Buchinski** serves as a productivity engineer in Schenectady, N.Y. at GE. . . . . **John Corini** works as a product design engineer in Lynn, Mass. at General Electric. . . . . **Philip Cullin** is with Astra Pharmaceuticals, Westboro, Mass.

Stephen DiPietro has been named a recipient of a fellowship administered by the Institute of Nuclear Power Operations. One of 62 fellowships awarded to advanced engineering students, it will aid the recipient in pursuing a master's degree in nuclear engineering. Each recipient receives a stipend of $5,500 for the academic year, with $2,500 being given to each institution to help defray other costs. The nationwide recipients were chosen based on grade point average and interest in nuclear power operations. Previously, DiPietro received a Babcock and Wilcox Academic Scholarship and a Mary T. Richardson Fund Scholarship. Currently, he is seeking an MS degree in nuclear materials engineering.

Mary Dunn works as a design engineer at Digital in Colorado Springs, Colo. . . . . **Alwyn Fitzgerald** has a new job as office manager of Connecticut Valley Biological Supply Co., Inc., Southampton, Mass.

Mike Gabriella, a quality control engineer at New England Interstate, Westboro, Mass., is a baritone in the Grandstand Vocal Band, 1980 semifinalists in the international SPEBSQSA (barbershop) competition.

Arthur Girard, who has a BS in urban planning from WPI, is program administrator for Memorial Square Home Improvement Program in Springfield, Mass. . . . . **Peter Gould** is an associate engineer at Raytheon Co., Wayland, Mass. . . . . **Robert Gregorio** serves as a platoon leader with the U.S. Army at Ft. Bliss, Texas.

Suzanne Hess, an Exxon sales representative, is concerned with the southeastern Virginia territory. She has conducted lubrication courses for Exxon customers in the area. Anheuser-Busch invited her to recommend lubes for all the new equipment for its massive Williamsburg brewery expansion. For relaxation, Sue likes nothing better than sailing around Chesapeake Bay in a 19-foot sloop. Last spring, she spent her vacation island-hopping the Caribbean in a chartered boat.

2/Lt. **Steve Kanevski** is a navigator for the U.S. Air Force. He expects to be stationed in England soon. . . . . **Jim Kelleher** serves as a programmer at IBM in Middletown, R.I. He is working on the command and control system for the Trident submarine and also taking an assembly language programming course at URI.

Leonard Kleczynski is a design engineer in R&D for GE's Direct Energy Conversion Projects-Fuel Cells in Wilmington, Mass. . . . . **Andy Labrecque** holds the post of supervisor of production planning at Armstrong World Industries in Fulton, N.Y. . . . . **Claude Lecluze** is a process engineer at ELF-Aquitaine in France. . . . . **Kathleen McKeon** is completing her master of science degree at Michigan State University this year. She hopes to teach mathematics at a community or junior college.

Jeff Mills has just finished his MSME at Duke and now works at UOP Process Division near Chicago. . . . . **William Potter** works for General Data Comm., Inc., Danbury, Conn. He is also pursuing his master's degree. . . . . **Jeffrey Stickles** is a manufacturing engineer at AVCO Systems, Wilmington, Mass.

2nd Lt. **Gregory VanHouten** has graduated from the Navy's Aviation Indoctrination School. During the four-week course at the Naval Air Station, Pensacola, Fla., he studied basic aerodynamics, aviation physiology and engineering. AIC is the first step in the naval flight training program leading to designation as a naval aviator. VanHouten joined the Marine Corps in 1978.

Michael Vicens serves as a quality engineer at Storage Technology Corp. in Puerto Rico. He and Maria have two children. . . . . **Robert Williams** works as a project engineer for the Naval Electronic Systems Command in Washington, D.C. He and his wife Katherine have four children and live in Woodbridge, Va.

William Winters, who recently received his master's in engineering from Cornell, is with the U.S. Geological Survey in Menlo Park, Calif. . . . . Currently, **Mohammed Younes** works for Sonelec of Algeria.

1980

► *Married:* **Amos F. Barnes IV** and Judith G. Barrett on November 29, 1980 in Branford, Connecticut. The bride attended Eastern Connecticut State College and was employed at the Connecticut Savings Bank. The groom is employed at WPI under a National Science Foundation Research Grant while pursuing his master's degree in civil engineering. . . . . **John S. Cybulski** and Carole J. Potts in Schenectady, New York on December 13, 1980. The bride graduated from Becker. Her husband is employed in the manufacturing and management program at GE, Schenectady. . . . . **Thomas A. Daniels** and **Jean M. Martin**, '81, recently in Hingham, Massachusetts. The Rev. **Roger Borden**, a WPI professor, performed the ceremony. The bridegroom works for Babcock & Wilcox Co., Lynchburg, Va. . . . . **Mark W. DiLuglio** to Paula Dolyak on February 14, 1981 in Greenville, Rhode Island. Mrs. DiLuglio graduated from Rhode Island College. . . . . **James J. Feenan, Jr.** and Patricia J. Curry in Hamilton, Massachusetts. Mrs. Feenan, an emergency nurse at Fallon Clinic, Worcester, graduated from Essex Agricultural and Technical Institute. Her husband is with Coppus Engineering.

Anne M. Haselton and **Robert Kuklinski**, '81, in Lynnfield, Massachusetts. They are residing in Manchester, N.H. . . . . **Anthony A. Masullo** and Anne E. Weber in Yardley, Pennsylvania on October 11, 1980. The bride attended Becker and is employed at Kaplan's Travel Bureau, Norwich, Conn. The bridegroom works for Pfizer Chemical Company, Groton.

Brownell Bailey works as a project manager for an engineering firm in Dillon, Colorado. "Living in Breckinridge. Love it here!" . . . . **Douglas Beller** serves as a member of the technical staff at Hughes Aircraft in Culver City, Calif.

Godwin Benson is now a senior lecturer in the Kaduna Polytechnic Mechanical Department, Kaduna, Nigeria. He serves as a Nigerian soccer referee. . . . . **Roger Busico** is a member of the technical staff and an electrical design engineer at Bell Telephone Laboratories in Whippany, N.J.

John Cermenaro holds the post of product development engineer at CBS Musical Instruments in Fullerton, Calif. . . . . **Frank De Bonis** is presently a management trainee at U.S. Steel Corporation, Texas works, in Baytown, Texas. . . . . **David Drevinsky** works as an environmental engineer with the EPA, Boston. He goes part-time to graduate school and belongs to several chess clubs, including the United States Chess Federation.

Paul Filewich is employed as a design engineer at Harris Corp., Westerly, R.I. . . . . **David Fox** is a technical support specialist at Digital in Merrimack, N.H. . . . . **John Goodwin** is employed as a programmer-analyst at Arthur Andersen & Co., Boston. . . . . **Gary Graf** is with Sanders Associates in Nashua, N.H.

William Guilfoile, Jr. serves as an electrical project engineer at Anaconda Industries, American Brass, in Ansonia, Conn. . . . . **Jeffrey Ironfield** now works as a consulting engineer for EDS Nuclear, Inc., Melville, N.Y. . . . . **Thaddeus Kielar** is presently a research associate at International Energy Associates, Ltd. in Washington, D.C. . . . . **David Lesser** serves as a product engineer at Western Electric in Reading, Pa.

Karen Liukkonen is a student in the MBA program at Babson College, and lives in Needham, Mass. . . . . **Silvia Matamoros Loud** is employed as a design engineer at T.R.W. Vidar, Melbourne, Fla.

Jon Marshall currently serves as an associate engineer at NBI, Inc., in Boulder, Colorado. The company manufactures word processing systems. . . . . **Linda McInnis** is a hardware technical writer for Computervision of Bedford, Mass.

John Milson holds the post of administrator of standards and documents at Interactive Data Corp., Waltham, Mass. . . . . **Richard Mongeau** is in the manufacturing management program in GE's Reentry Systems Division, Philadelphia. . . . . **John Nenninger** is a mechanical engineer in training at Heald Machine Co., Worcester.

Ian Newman works as a project engineer at Sprague Electric in Worcester. . . . . **Matthew Powell** is employed as a hardware design engineer in the Strategic Systems Division at GTE Sylvania in Needham Heights, Mass. . . . . **Marc Provencal** has joined TRW Corp., Redondo Beach, Calif.

John Putis works as a marketing engineer at Western Electric. . . . . **Bruce Richmond** works for GE in Utica, N.Y. . . . . **Matthew Rubano** is an associate engineer at Northeast Utilities in Hartford, Conn. . . . . **Mark Senior** is a process engineer at Badger America, Inc., Tampa, Fla. . . . . **Peter Sherer** has been named a control products design engineer at Texas Instruments in Attleboro, Mass.

Carlos Smith serves as a programmer at Computervision Corp., Bedford, Mass. . . . . **Joseph Sotak** has joined Western Electric in Kearny, N.J. . . . . **Christian Tasche** is with Boeing Commercial Airplane, Seattle. . . . . **George Tobin, Jr.,** serves as a supply management intern for the U.S. Army in Texarkana, Texas. In March, he was scheduled to be transferred to the Army Command in Ft. Monmouth, N.J. He is working for his MBA.

Geoff Ward is a microcircuit fabrication engineer in the quality department at Analog Devices Semiconductor, Wilmington, Mass. . . . . **Richard Whalen** is employed as a software engineer by Digital in Maynard, Mass.

Natural Science Program

A. Thomas Shirley, '72, was recently named a teacher of physics at Dover High School, Dover, N.H. Formerly he taught in Hampton. He holds a BS from Plymouth State College.

Robert Kolesnik, '78, teaches physics at Bartlett High School, Webster, Mass.

Richard Simmons, '70, is presently head of the biology department of a high school in New Zealand. He attended Bridgewater State College and graduated from Boston University. He and his family reside in Palmerston North, New Zealand, a city of 60,000 which is considered to be an educational center.

► *Married:* **Anthony V. Messa**, '79, and Ann Mary Manning on December 19, 1980 in Manchester, New Hampshire. The bride, who graduated from Mount St. Mary College, is employed in the English department at Manchester Memorial High School. Her husband is with the science department at the same school.

School of Industrial Management

Formerly with Sentry Co., Foxboro, Mass., **Charles Gelette, Jr.**, '54, is now retired and residing in Taunton, Mass.

For the last 12 years, **Albert Ormondroyd**, '55, has had his own business in Maine. Currently, he is retired in Whitinsville, Mass.

Nicholas Moffa, '56, has been elected chairman of the board of the Grinding Wheel Institute, which is an association of U.S. manufacturers of grinding wheels. Moffa is president of Bay State Abrasives, Westboro, Mass.

Leonard Krasnow, '57, serves as vice president of engineering at Berlyn Corp., Worcester.

Clifford Pontbriand, '58, writes that he is now manager of frame manufacturing for Pennsylvania Optical Company in Reading, Pa.

Paul Flynn, '66, is plant superintendent in Burlington, N.C. for Crompton & Knowles Corp.

Recently, **Robert Rowse**, '66, was appointed divisional vice president and general manager for proppants at Norton Co., Worcester. He continues as division vice president for research and new business development.

Gerard LaFleche, Jr., '77, has been promoted to manager of inventory planning, ophthalmic instruments, for the Instrument Division at American Optical Corp., Southbridge, Mass. He has had 15 years experience at AO in distribution, customer service, and inventory planning. In his new post, he is responsible for coordinating factory scheduling for the firm's Buffalo, Rochester and Southbridge plants. He graduated from Nichols College.

Schwieger Award to Henning Frederiksen

Henning Frederiksen, SIM '63, recently received the Albert J. Schwieger award for outstanding achievement at the School of Industrial Management's 32nd midyear banquet at the Wachusett Country Club.

Frederiksen is president and treasurer of the Plainville (Mass.) Machine Works Co., which he founded in 1961. He also organized the Plainville Products Group in 1973 and the Plainville Hydraulics Corp. in 1975.

A native of Argentina, he attended Norfolk public schools and Boston Trade School. During World War II, he was with the U.S. Army. From 1951 to 1953, he was a master sergeant in the Air Force.

The Schwieger Award is named for the first director of WPI's School of Industrial Management. The school offers a four-year course designed for middle management personnel from area industry.

Bonnie-Blanche Robinson Schoonover, the first librarian emeritus of WPI, died in Worcester on February 9, 1981.

Before retiring in 1964, she was head librarian at WPI for over 22 years. Earlier, she had been night librarian at Radcliffe College.

She was born on Nov. 15, 1893 in Ponca, Nebraska. In 1915, she graduated from Morningside College, Sioux City, Iowa. Later, she received her MA in English at Radcliffe, and then studied for her PhD.

While taking graduate courses at the University of Chicago, she did volunteer social work with teenagers at the famed Jane Addams Hull House. She worked tirelessly after World War I for the passage of the Nineteenth Amendment. "I even spent a night in jail protesting for the right of women to vote," she once admitted.

During World War II, her husband, Lynn Schoonover, was named assistant professor at WPI. Before his death in 1973, he became acting head of the economics department at WPI. Also, he was head of the department of finance at Northeastern and a lecturer at Becker.

When Prof. Schoonover first came to WPI, his wife was offered the post of librarian, a position she held until her retirement in 1964. She once said of her years at WPI, "Boys and books! How can you beat that for a living? And God never made any finer men than engineers."

Mrs. Schoonover belonged to the Congregational Church, and was a former Sunday school teacher. She was a past president of the Worcester Woman's Club and a member of the Worcester Ecumenical Council. A book reviewer and lecturer for many years, she appeared in the 1966 edition of *Who's Who of American Women*. A scholarship is given annually in her name to a woman student at WPI.

Jacob L. Mueller, '13 of Shrewsbury, Pennsylvania, the retired owner of Mueller Engineering Co., died on June 23, 1980.

In 1963, after more than 41 years, Mueller Engineering closed its doors. The firm did heating and air conditioning contracting.

Mr. Mueller was born on Mar. 7, 1889 in Austria. In 1913, he graduated as a mechanical engineer from WPI. For four years, he did graduate research in the heat treatment of low carbon steels. During that time, he developed a carburizing compound, designed facilities for its manufacture, and served as a specialist-consultant to New England manufacturers.

In World War I, he was plant manager and chief engineer for the American Chain & Cable Co. While with the company, he designed and supervised the construction of special mechanized carburization furnaces which obtained better results of speed and depth penetration than by previous methods.

A professional engineer, Mr. Mueller was a pioneer in the development of automatic heat for home and industry until his retirement in 1962. He belonged to the Engineering Society of York (Pa.), the Lions Club, and Executives Club, which he had served as president. He was a life member of the state and national Society of Professional Engineers.

Oliver W. Cook, '15, died unexpectedly at his home in Bridgton, Maine on February 9, 1981.

A native of Warren, R.I., he was born on Aug. 6, 1891. He attended WPI and Clark. For many years, he served as a self-employed mechanic in Maine until his retirement. Woodworking and stamp collecting were among his lifetime hobbies.

He was a veteran of World War I. When the Clark University Ambulance Unit was formed, he joined it, and spent the duration of the war in France driving heavy supply trucks.

Wellen H. Colburn, '16, a long-time employee of the Boston Edison Company, died on January 21, 1981 in Ayer, Massachusetts. He was 86.

In 1916, he received his BSEE from WPI, and in 1917, his professional degree. Following his graduation from WPI, he joined Bay State Street Railway in Boston. Other employers were Bethlehem Shipbuilding Co. in Quincy and Thomson Electric Welding Co., Lynn. In 1920, he became affiliated with Boston Edison, retiring in 1960. From 1955 until 1962, he was an instructor at Northeastern University in Boston. Following his retirement, he became a self-employed consulting engineer.

Mr. Colburn, who belonged to Tau Beta Pi and Sigma Xi, was also a member of the IEEE, the Masons, and the United Church of Shirley, Mass. He served as chairman of the Shirley Red Cross Bloodmobile. He was a past president of the Boston chapter of the WPI Alumni Association and a past member of the Alumni Council. A native of Worcester, he was born on Dec. 1, 1894.

Harold G. Saunders, '16, the former vice president in charge of sales and engineering at Airserco Mfg. Co., Pittsburgh, Pennsylvania, died recently.

He was born on July 4, 1894 in Providence, R.I. After graduating as a mechanical engineer in 1916, he worked for New England Westinghouse in Chicopee Falls, Mass. During World War I, he was with the U.S. Army in France serving as a bombardier and instructor. From 1919 until 1959, he was with Kinney Vacuum, Boston, where he rose to sales manager. After his retirement from Kinney, he went with Airserco. He belonged to Theta Chi.

Clifford C. Whiting, '17, passed away recently.

For many years, he was a self-employed manufacturing jeweler in Chicago, Ill. A member of the class of 1917, he belonged to Phi Gamma Delta.

Arthur M. Millard, '18, a retired transmission engineer from the Southern New England Telephone Company, died in New London, Connecticut on November 20, 1980. He was 87.

Mr. Millard was employed by the New Haven office of SNET for over 40 years. In 1959, he retired.

He was born on Jan. 16, 1894 in Hartford, Conn. After graduating as an electrical engineer in 1918, he joined Southern New England Telephone. A member of AIEE, the Baptist Church, the Graduate Club in New Haven, and the Telephone Pioneers of America, Mr. Millard also belonged to the New Haven Country Club. He was a 50-year member of the Masons. His brother, Fred Millard, graduated from WPI in 1922.

Maurice W. Richardson, '18, died in Saratoga Springs, New York on December 20, 1980 at the age of 84.

Prior to joining Mohasco Industries in Amsterdam, N.Y. in 1923, he worked for R. Wallace and Sons Mfg Co., Wallingford, Conn.; John A. Stevens Consulting Engineers, Lowell, Mass.; and the Naval Experimental Station in New London, Conn. For twenty years, he held the post of manager of the engineering department at Mohasco, formerly Mohawk Carpet Mills. He retired from the company in 1961.

Civic-minded, he was past executive director of the United Way of Montgomery County and a member of the Amsterdam Planning Board. He was a trustee of the Methodist Church, the Amsterdam Memorial Hospital, and the Sanford Home for Women. For over 10 years, he was a member of the advisory council for the General Electric stations, WGY and WRGB.

Mr. Richardson graduated from WPI as an electrical engineer. He belonged to Skull, Theta Chi, and had been executive director of the Amsterdam Community Chest. He was a licensed professional engineer in New York State. During World War I, he was a chief electrician in the U.S. Navy. He was born on June 10, 1896 in Leomnister, Mass.

Watson H. Whitney, '19, died in Plymouth, Massachusetts on November 23, 1980 at the age of 83.

Following his graduation as a mechanical engineer, he joined Shepard Electric Crane and later, New Home Sewing Machine Co. From 1923 to 1958, when he retired, he was with GE in Lynn, Mass. He worked as a specialist in wage rates and union relations.

A native of Orange, Mass., he was born on Nov. 19, 1897. He belonged to Tau Beta Pi, the Congregational Church, the local senior citizens' club, the Cracker Barrel Club, and Retired Men's Club. He was a 50-year Mason.

Col. **Robert W. Horner, '20,** U.S. Army Retired, died in Marietta, Ohio on January 15, 1981.

A career army officer, Col. Horner served in World War I and World War II, retiring from active duty in 1954. For twenty years, he was with Birmingham Electric Co. in Alabama. Later, he joined Lockheed Aircraft, Marietta, Ga. After retirement, he became a tax examiner for the Internal Revenue Service.

Col. Horner was born in Hartford, Conn. on Nov. 5, 1895, and was a member of the Class of 1920. He belonged to the Masons and the Baptist Church. A past president of the AARP No. 764, he also belonged to the National Association of Retired Federal Employees.

Richard B. Swallow, '23, a 46-year employee of the Public Service Electric and Gas Co. in Newark, N.J., died in Rumford, Maine on December 22, 1980. He was 80 years old.

Born on July 14, 1900 in Manchester, N.H., he subsequently became a student at WPI. In 1923, he graduated with his BSEE. During his long employment with Public Service Electric and Gas Co., he served as a meter and wiring engineer. He retired in 1970. He was a member of Phi Sigma Kappa and the Elks.

Solon C. Bartlett, '24, died at his home in Ridgewood, New Jersey on February 18, 1981. He was 79.

After receiving his BSEE from WPI, he joined Edison Electric Institute as a coordination engineer. For four years he was a research engineer at Ford Instrument Co. From 1937 to 1966, he was with American Electric Power Co., New York City, where he retired as electrical engineer in charge of communications.

Mr. Bartlett held first class commercial and amateur radio licenses and was a past president of Hobbyists Unlimited of Ridgewood and of the New York Chapter of the Alumni Association. In 1973–1974, he was a member of the President's Advisory Council at WPI. He also belonged to the IEEE and CIGRE. He was born on Aug. 28, 1901 in Washington, D.C.

Raymond G. Wilcox, '24, retired general supervisor of lines at Western Union Telegraph Co., New York City, passed away on January 18, 1981 in Westwood, New Jersey.

Following his graduation as a civil engineer from WPI, he began work at Western Union. He started as a plant inspector and was promoted to construction supervisor, then divisional supervisor of lines. From 1962 until 1967 he was general supervisor of lines.

Mr. Wilcox was born on Jan. 25, 1902 in Griswold, Conn. He was an active participant in the Baha'i faith and served as a member of various Baha'i committees and as a teacher and public speaker. He belonged to SAE and Skull.

Gordon F. Howes, '26, of Pelham, New York died on April 27, 1980.

He was born on July 27, 1904 in Holyoke, Mass. In 1926, he graduated from WPI as an electrical engineer. He joined the New York Telephone Co. following graduation, and retired in 1969. While with the company, he served as a traffic engineer, equipment engineer, and methods engineer. He was a member of Lambda Chi Alpha and Tau Beta Pi.

Harry C. Peinert, '26, formerly a production manager for du Pont, died after a long illness in Wilmington, Delaware on February 5, 1981. He was 75.

A native of Clinton, Mass., he was born on June 19, 1905. In 1926, he received his BS in chemistry from WPI. He joined du Pont after graduation, and retired in 1966 following a 40-year career in the explosives department manufacturing operations.

While with du Pont, he served as chief chemist at the company works in Birmingham, Alabama; assistant plant manager at the Seneca, Ill. works; and as production manager of the company's explosives department in Wilmington. He was a member of Tau Beta Pi and Sigma Xi.

Cecil R. Furminger, '27, of Appleton, Wisconsin died on November 1, 1980.

He was born on Aug. 26, 1902 in Mitteneague, Mass., and was a member of the class of 1927. During his career, he worked for Terry Steam Turbine, Orbison & Orbison, Appleton Machine Co. (vice president), and Gilbert & Nash Co. (assistant manager). He was a 32nd degree Mason and Shriner.

For eleven years, he served on the board of Appleton Memorial Hospital. He belonged to the Salvation Army advisory board.

David G. Cormier, '28, recently died in Webster, Massachusetts.

For many years, he was with the Massachusetts Electric Co., Worcester, from which he retired in 1967. For a time, he was chief engineer.

He was born on Dec. 17, 1901 in Somersworth, N.H., and later became a member of the class of 1928. He belonged to SAE.

Harold G. Richards, '29, a 40-year employee of Industrial Risk Insurers, passed away at his home in West Hartford, Connecticut on January 4, 1981 at the age of 73.

A native of Stamford, Conn., he was born on Nov. 27, 1907, and later became an electrical engineering student at WPI. He was a member of Lambda Chi Alpha. He joined the Factory Insurance Association (now Industrial Risk Insurers) in 1929 as an inspector. Other posts were with Liberty Mutual Insurance Co. and Western Sprinkled Risk Association, where he was a special agent. He retired in 1972 from IRI, where he had been an administrative assistant.

Mr. Richards belonged to the local Congregational Church choir for 31 years, and was associate treasurer for 13 years. He was a 32nd degree Mason, a past president of the Pioneers Club of F.I.A., and an honorary member of the West Hartford Art League.

Charles K. Aldrich, '31, formerly of Buttzville, New Jersey died recently.

During his career, he worked for International Nickel Co. of Canada, Ontario Refining Co., and American Cyanamid Co., Bound Brook, N.J.

He was born on Feb. 29, 1908 in Perth Amboy, N.J. Subsequently, he became a member of the class of 1931. He belonged to Lambda Chi Alpha.

John J. Molloy, Jr., '33, formerly the president of Construction Management Corp. of New York City, died on December 27, 1980 in Glen Ridge, New Jersey.

A native of Hartford, Conn., he was born on Sept. 19, 1911. In 1933, he received his BSCE from WPI. During his lifetime, he was with the Bureau of Public Works in Hartford; the Connecticut Aviation Commission; and Raymond Concrete Pile Co., where he was construction superintendent. At the time of his death, he was employed by Page Communications, Inc., in Virginia. He traveled extensively throughout the world during his career.

Mr. Molloy belonged to ATO and Skull. He was a Navy veteran of World War II, serving as an officer with the Seabees. A member of the Connecticut Society of Civil Engineers, he also belonged to the Society of American Military Engineers.

Maxwell E. Marshall, '37, recently passed away in Sarasota, Florida.

He was born on June 5, 1915 in Holyoke, Mass., and graduated as a mechanical engineer from WPI in 1937. During World War II, he served as a lieutenant commander in the U.S. Navy. For many years, he was with Long Island Lighting Co., retiring as manager of mechanical and civil engineering in 1976.

Mr. Marshall belonged to AEP, the Masons, and the Edison Electric Institute.

Col. **Irving T. McDonald, Jr., USAF (Ret.), '46,** died in New Smyrna Beach, Florida on October 2, 1980.

He was born on Dec. 23, 1925 in Springfield, Mass. He was in the Navy V-12 class of 1946, and left WPI in his junior year to enter the U.S. Naval Academy. In 1949, he graduated and was subsequently commissioned a second lieutenant in the Air Force. In 1953, he received a master's degree in engineering from Purdue University and did postgraduade work at the University of Michigan. He belonged to EKN.

At the time of his retirement in 1973, he was chief of the policy and plans division for Air Force Intelligence in Washington. After moving to Florida, he was appointed manager of the Deltona office of the First Federal Savings and Loan Association, Daytona Beach, Fla.

During his career, he had many interesting tours of duty. One of the most memorable was a 17-month tour as assistant air attache in Moscow, when he traveled extensively throughout the U.S.S.R.

"Mac" rose to the rank of colonel during his last assignment in the Pentagon, before retiring and moving to Florida.

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